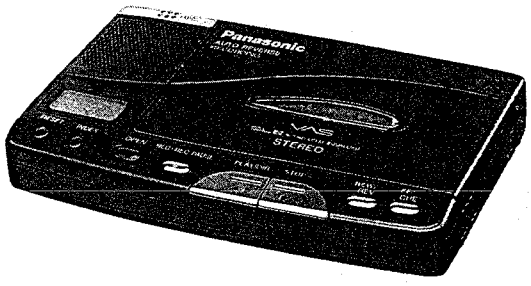
ORDER NO. AD9207263C1
A1

Service Manual

Mini Cassette

Mini Cassette Recorder

RQ-L500



Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)
(PC)	Canada.	

RQ-S5V MECHANISM SERIES (AR90)

■ SPECIFICATIONS

Track system:	4-track 2-channel stereo
Recording system:	AC bias
Erase system:	DC erase
Monitor system:	Variable sound monitor
Frequency range:	150–5000Hz (with normal)
Tape speed:	4.8cm/s ($1^{7}/_{8}$ips)
Jacks	
Input:	MIC; 0.8mV (200–600Ω)
Output:	Phones; 16Ω, φ3.5
Speaker:	3.6cm, 8Ω
Power requirement:	Batteries; 1.5V (one or ※ two "AA" size batteries, not included) (Panasonic UM-3/R6P, AM3/LR6 or equivalent, not included) AC; With included AC adaptor RP-AC11PY-K
Dimensions: (W×H×D):	147.5×22.6×92.5mm ($5^{13}/_{16}$"×$^{7}/_{8}$"×$3^{5}/_{8}$")
Weight:	205g (7.2oz) without batteries

Design and specifications are subject to change without notice.

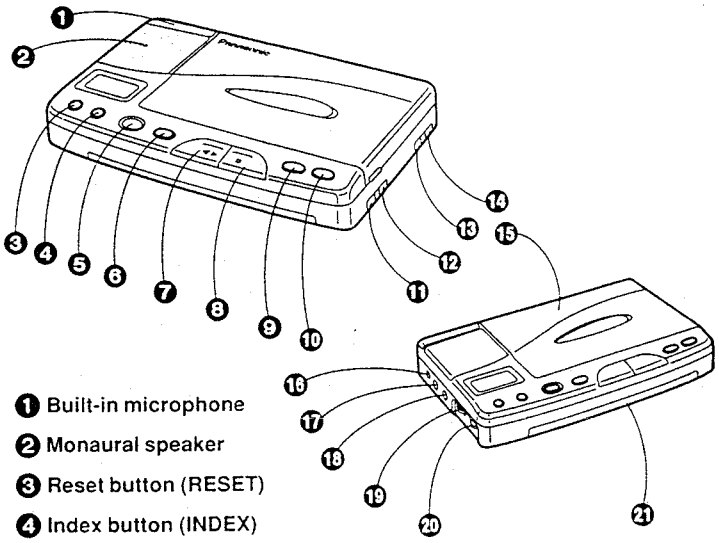
※ When the two "AA" size batteries are inserted, these batteries are used in parallel.

■ CONTENTS

	Page
LOCATION OF CONTROLS	2
BASIC OPERATING PROCEDURE	2
POWER SOURCE	3
ACCESSORIES	3
RECORDING	3, 4
PROCEDURE FOR THE REPLACEMENT OF MECHANISM BLOCK	5
PROCEDURE FOR DISASSEMBLY OF THE MAIN PARTS ON THE MECHANISM	6
DISASSEMBLY INSTRUCTIONS	7~11
INTERNAL CONNECTION OF LCD	11
MEASUREMENTS AND ADJUSTMENTS	12
HOW TO CHECK OPERATION DURING DISASSEMBLY AND SERVICING	13, 14
SCHEMATIC DIAGRAM	15~18
PRINTED CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM	19~21
TERMINAL FUNCTION OF IC	22
CABINET PARTS LOCATION	23
MECHANISM PARTS LOCATION	23
REPLACEMENT PARTS LIST	24, 25
RESISTORS AND CAPACITORS	26, 27
PACKAGING	27

Panasonic®

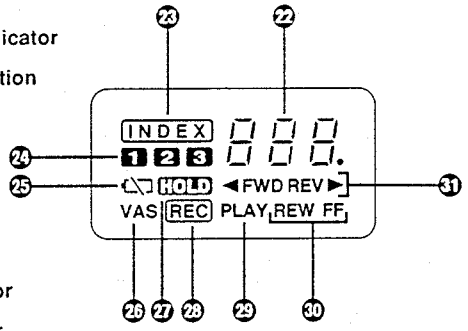
LOCATION OF CONTROLS



❶ Built-in microphone
❷ Monaural speaker
❸ Reset button (RESET)
❹ Index button (INDEX)
❺ Cassette compartment open button (OPEN)
❻ Record/record pause button (REC • REC PAUSE)
❼ Play/direction button (◄ ► PLAY/DIR)
❽ Stop button (■ STOP)
❾ Rewind/review button (REW/REV)
❿ Fast forward/cue button (FF/CUE)
⓫ Hold switch (HOLD)
⓬ Reverse mode selector (REVERSE MODE)
⓭ SLE/tone selector (SLE/TONE)
⓮ VAS switch (VAS)
⓯ Cassette compartment cover
⓰ DC input jack (DC IN 1.5 V ⟐⟜⟐)
⓱ Headphones jack ( ) 16Ω, φ3.5
⓲ Stereo microphone jack (MIC)
⓳ Tape speed control (TAPE SPEED)
⓴ Volume/VAS level control (VOLUME/VAS LEVEL)
㉑ Battery compartment cover

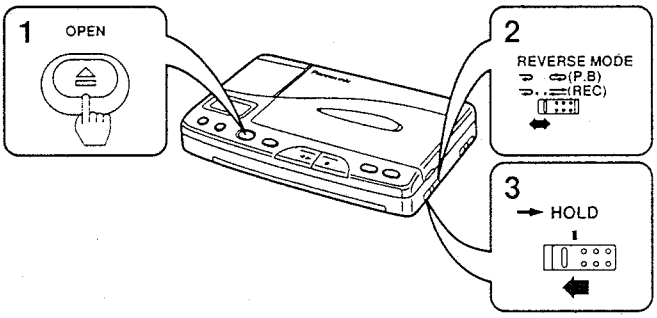
Display section

㉒ Tape counter
㉓ Index indicator
㉔ Index number indicator
㉕ Battery consumption indicator
㉖ VAS recording indicator
㉗ Hold indicator
㉘ Record indicator
㉙ Playback indicator
㉚ FF REW indicator
㉛ Direction indicator



BASIC OPERATING PROCEDURE

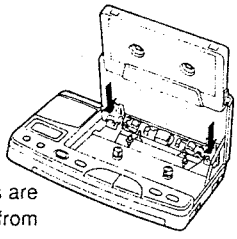
Basic Operating Procedure is common to every operation. Before you go to "Recording" or "Listening to Tapes", make sure these steps to be done.



1 Press the cassette compartment open button to open, and insert the cassette.
The exposed side should face downwards.

After closing the cover, the slack of the tape will be taken up automatically.

After the cover is closed or the batteries are replaced, tape operation always starts from the forward side.



2 Set the reverse mode selector to proper position.

⇨(P.B) For endless playback of both sides of the cassette.
⇉(REC) For one way recording. (Recording stops automatically at the end of the cassette.)

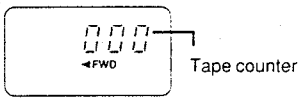
⇒(P.B) For playback and recording from forward side through
⇒(REC) reverse side of the cassette.

3 Release the hold state.
This switch can be used to prevent unintended operation. You cannot activate buttons located on the upper panel except the cassette compartment open button, when the unit is in the hold state. (The display window shows "HOLD".)
Before operating these buttons, be sure to release the hold state.

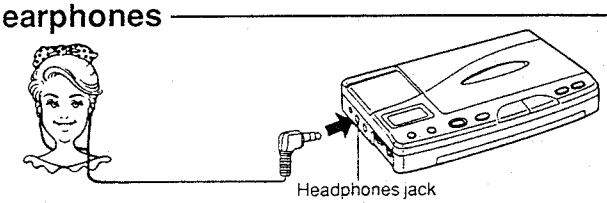
Tape counter

It indicates amount of tape movement. (In reverse side operation, counter runs in descendent order.)
To reset the counter digit to "000", press the reset button for a while.

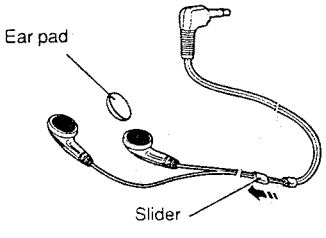
RESET



When using with the stereo earphones



When not in use, slide up the slider to prevent entanglement of the cord.



■ POWER SOURCE

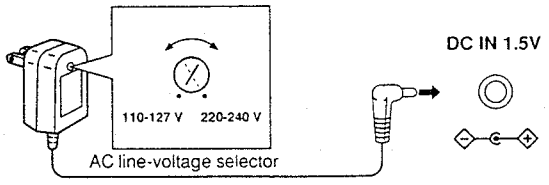
This unit can operate on 2 different power sources: AC adaptor or dry cell batteries.

AC adaptor

Use only the AC adaptor provided with this unit.

Before use

Make sure the preset voltage of your AC adaptor fits to your local voltage before plugging it into the AC power outlet. If it doesn't, turn the AC line-voltage selector with a screwdriver so that it corresponds to your local voltage.



1 Insert the plug at the end of the AC adaptor cord into the DC input jack.

2 Plug the AC adaptor into your household AC power outlet.

Caution:

1. Voltage range "220~240 V" is not for use in U.S.A.
2. Operation at voltage setting higher than 127 V AC may require the use of a different AC plug or cord set. Please contact either a local or foreign Panasonic Authorized Servicenter for assistance in selecting an alternate plug adaptor of type SJP9215.

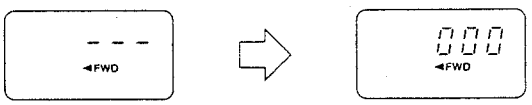
When to replace the batteries

Replace the batteries when the sound distortion or incorrect operation occurs.

You can also check battery condition by the battery consumption indicator. The indicator begins flashing on and off when the battery is half-used.

Note:

Display may shows "– – –" soon after replacing batteries. If it occurs, press the play/direction button or insert a cassette so that the display shows "000".

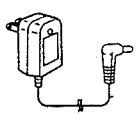


BATTERY SERVICE LIFE (EIAJ)

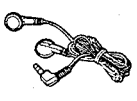
Dry cell batteries		Record (hour)	Play (hour)
Panasonic R6P	One battery	2.5	2.5
	Two batteries (parallel)	7	7
Panasonic alkaline LR6	One battery	7	7
	Two batteries (parallel)	19	19

The above battery service life is measured according to the conditions set forth by EIAJ (Electronic Industries Association of Japan). As the battery service life varies with the method of operation and environmental conditions, use these values as reference.

■ ACCESSORIES

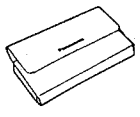


AC adaptor
1 pc.
(RP-AC11PY-K)



Stereo earphones
1 pc.
(RP-HV135SY-0)

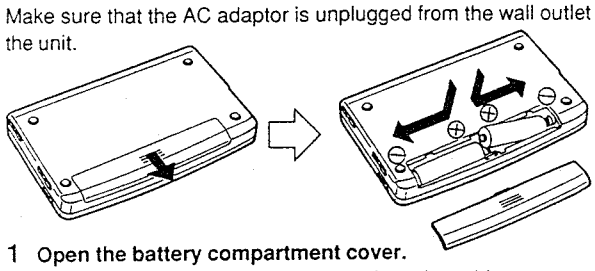
External stereo microphone
1 pc.
(RPEM101PS)



Carrying bag
1 pc.
(RQDK105ZA)

Dry cell batteries

Make sure that the AC adaptor is unplugged from the wall outlet and the unit.



1 Open the battery compartment cover.
Press gently and slide the cover out from the cabinet.

2 Insert AA-size batteries into the battery case.
Install the battery and then push in the direction of the arrow. Batteries installed with incorrect polarities may leak and damage the unit.
Do not mix batteries (old and new) or types (carbon and alkaline).
If batteries should leak and the leaking electrolyte comes in contact with skin or clothes, flush with water immediately. If the internal parts of a battery become visible because of damage to the battery, discard it immediately.

3 Close the battery compartment cover.

This unit still operates on only one battery however its operation time will be shorter than that of two batteries.

Battery removal

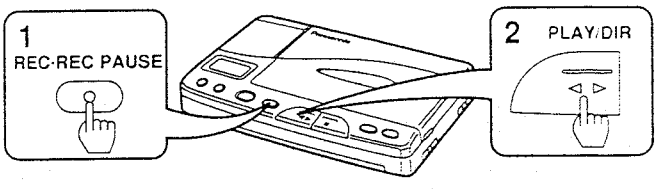
Press the ⊕ side toward the ⊖ battery terminal and lift up.

■ RECORDING

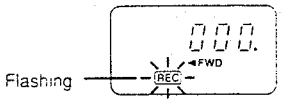
This unit has an automatic level control system (the recording level is automatically adjusted).

Recording through the built-in microphone

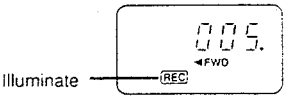
Preparation: Follow the steps 1 to 3 of "Basic Operating Procedure" on page 2.
Press the rewind button to rewind the tape.



1 Press and hold the record/record pause button.
The record indicator begins flashing on and off on the display window.



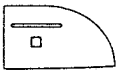
2 Press the play/direction button while the record/record pause button is held down and the recording starts.
The record indicator stops flashing to illuminate.



Take up the leader tape since you cannot record on it.

To stop the recording

STOP



Press the stop button to stop the recording. (Recording indicator disappears.)

To temporarily stop the recording

REC·REC PAUSE

Press the record/record pause button. Record indicator starts flashing.

As long as the record/record pause button is held down, the tape will keep running but no sound will be recorded. This allows you to erase a portion of the tape.

Press the play/direction button to resume the recording.

Don't leave the unit in the pause mode for a long time. Press the stop button to stop the recording.

SLE (Sound Level Equalizer)

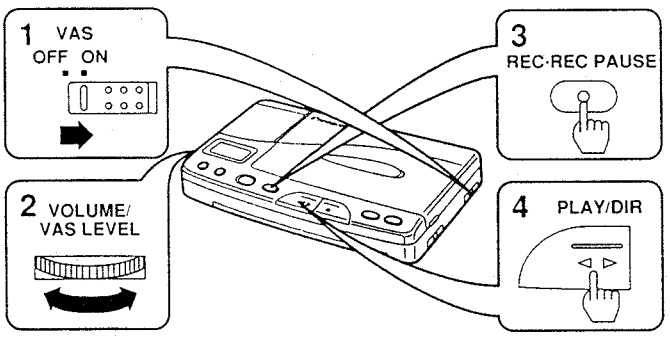
SLE/TONE
OFF/L ON/H

SLE improves recordings when the sound source is not near the recording unit. This is helpful for recording in class and conference rooms. To activate, set the SLE selector to "ON".

VAS (Voice Activated System) recording

When using the VAS recording, the sound is recorded automatically, so there is no tape waste.

Preparation: Follow the steps 1 to 3 of "Basic Operating Procedure" on page 2.



1 **Set the VAS switch to "ON".**

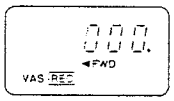
2 **Define the sound level you wish to record by using the VAS level control.**
1–3: If you wish to record only the louder sounds.
4–7: If you wish to record normal level sounds.
8–10: If you wish to record lower levels of sound than usual.
No sound is recorded at the "0" position.

3 **Press and hold the record/record pause button.**

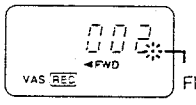
4 **Press the play/direction button while the record/record pause button is held down.**

Press the stop button to stop VAS recording.

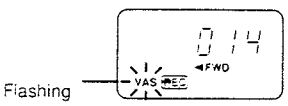
VAS recording works in the following way:
The tape may not run although VAS recording has started. This is because sound is not picked up.



When sound is picked up through the built-in or external microphone, the tape starts running for recording.



When no sound is picked up, the tape automatically stops running (about four seconds later).

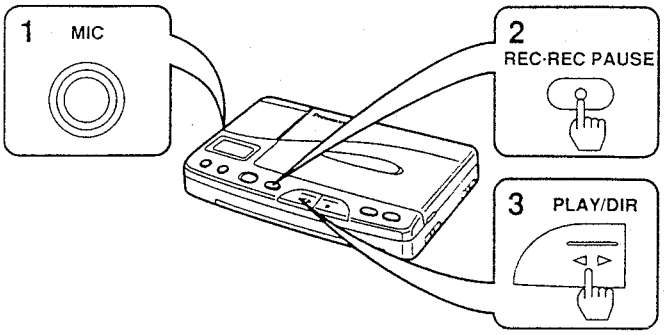


Note:
The recording level is automatically adjusted regardless of the position of the VAS level control.

If you want to end your recording, press the stop button to end VAS recording.

When using the external stereo microphone

Preparation: Follow the steps 1 to 3 of "Basic Operating Procedure" on page 2.



1 **Connect the external stereo microphone (included) to the stereo microphone jack.**

2 **Press and hold the record/record pause button.**

3 **Press the play/direction button while the record/record pause button is held down**

Monitoring

The monitor system enables you to listen to the sound, through the speaker or stereo earphones, as it is being recorded. If it is necessary to adjust the volume level of the sound being monitored, do so by using the volume control.

Note:
Don't adjust the volume level during the VAS recording, or the VAS level is affected.

Erasure of recording

When recording, previously recorded signals on the tape will be erased automatically.

■ PROCEDURE FOR THE REPLACEMENT OF MECHANISM BLOCK

• How to replace the mechanism block

The mechanism block is supplied without other parts as a semi-assembly. The head block, motor and belt are supplied separately from the mechanism block.
If the mechanism block is exchanged as a replacement assembly, follow the preparation procedure below.

Preparation procedure

Remove the head block, motor and belt from the mechanism to be replaced and replace those parts to the new mechanism block.
(Refer to the "PROCEDURES FOR DISASSEMBLY OF THE MAIN PARTS ON THE MECHANISM".

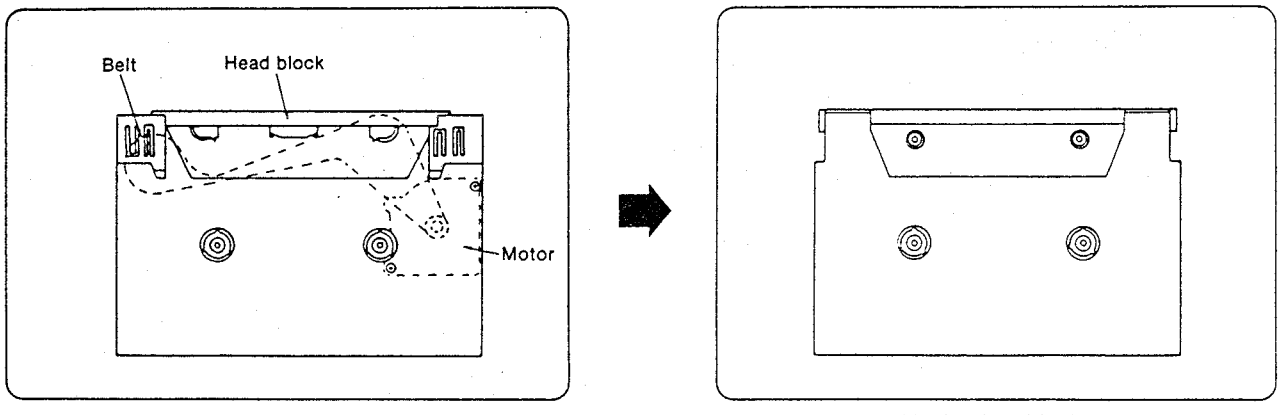


Fig. 1 Fig. 2

※ The adjustment of the mechanism block is unnecessary after replacement.

• How to replace the head block

The head and pinch roller are supplied together in the head block. The pinch roller is also supplied separately.

Preparation procedure

The head block for replacement is not supplied with a holder as shown in the figure below. Therefore, remove the holder from the block to be repaired and mount it to the new head block. Then, proceed to replace the head block.
(Refer to the "PROCEDURES FOR DISASSEMBLY OF THE MAIN PARTS ON THE MECHANISM".

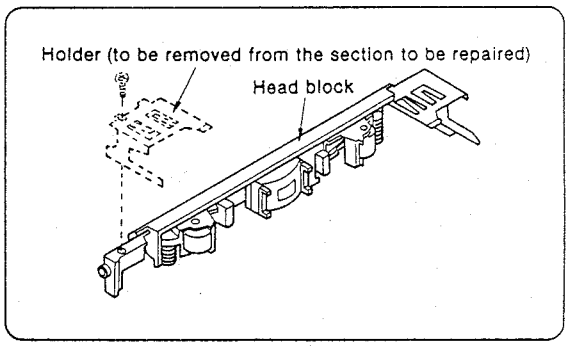


Fig. 3

※ Head azimuth adjustment is unnecessary.

■ PROCEDURES FOR DISASSEMBLY OF THE MAIN PARTS ON THE MECHANISM

• How to remove the mechanism

Follow the procedures in Ref. Nos. 1~7 in the Disassembly Instructions. (See pages 7, 8.)
※ After replacing the parts, refer to the notes for assembly. (See pages 10, 11.)

• How to remove the head block and pinch roller

1. Follow the procedures in Ref. Nos. 2 and 5 in the Disassembly Instructions, remove the bottom cabinet ass'y and cassette lid ass'y. (See pages 7 and 8.)
2. Remove 10 solders (REC/PLAY & Erase head FPC).
3. Remove 2 screws (❶, ❷) in order to remove the head block. (See Fig. 5.)
4. Remove 2 washers. (See Fig. 6.)
5. Remove 2 springs in order to remove the pinch roller. (See Fig. 7.)

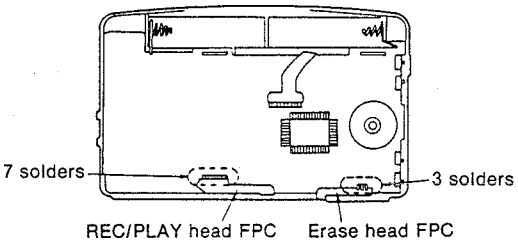


Fig. 4

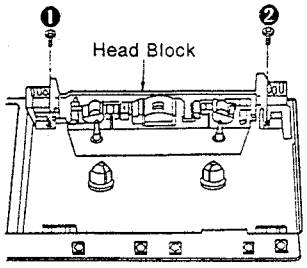


Fig. 5

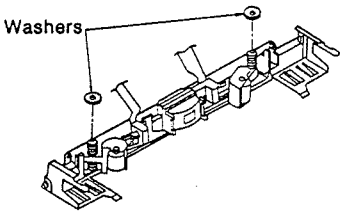


Fig. 6

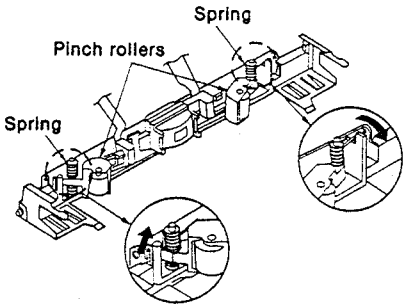


Fig. 7

• How to remove the motor and belt

1. Follow the procedures in Ref. Nos. 1~3 in the Disassembly Instructions. (See page 7.)
2. Remove 3 screws (❶~❸). (See Fig. 8.)
3. Remove the motor in the direction of the arrow. (See Fig. 9.)
4. Remove the coil P.C.B. from the motor. (See Fig. 10.)
5. Remove the belt from the motor. (See Fig. 10.)

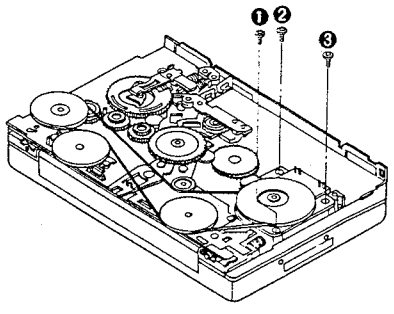


Fig. 8

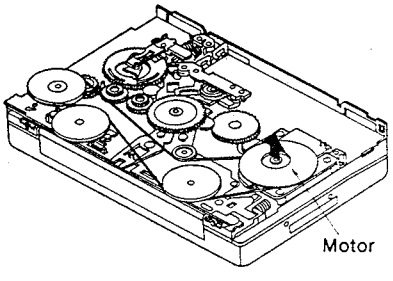


Fig. 9

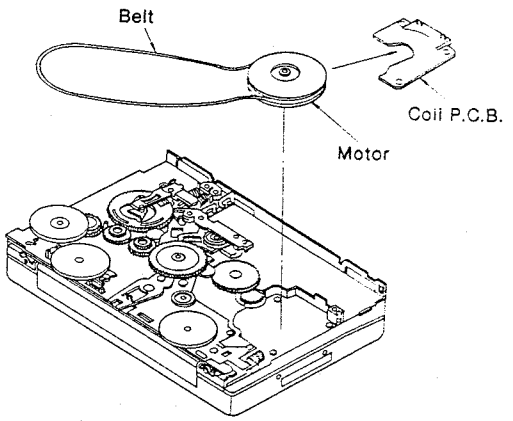
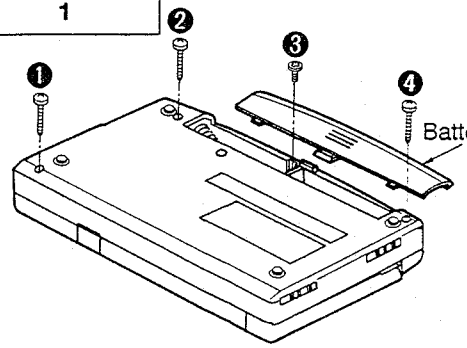
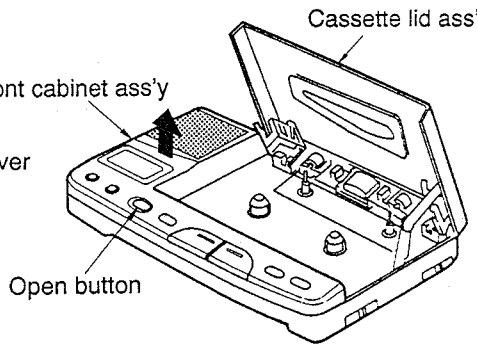


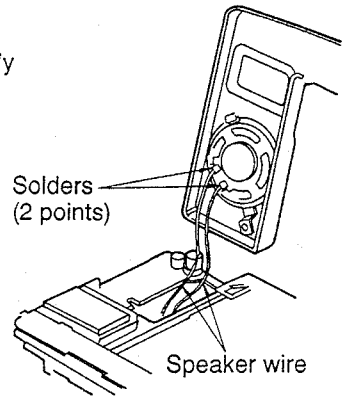
Fig. 10

DISASSEMBLY INSTRUCTIONS

Ref. No. 1	Removal of the front cabinet ass'y
Procedure 1	

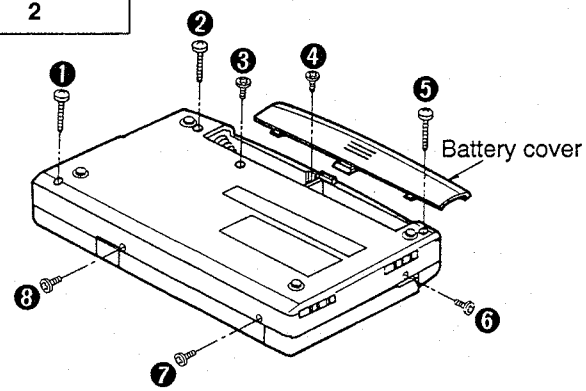


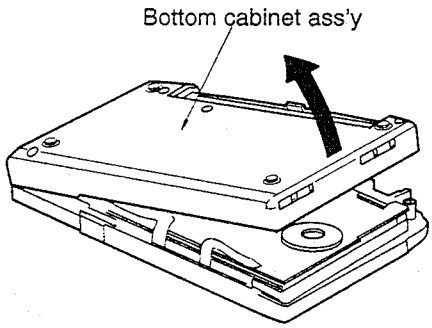




1. Remove the battery cover.
2. Remove the 4 screws (❶~❹).
3. Push the open button and then open the cassette lid ass'y.
4. Remove the front cabinet ass'y in the direction of arrow.
5. Unsolder the speaker wire (2 points).

Ref. No. 2	Removal of the bottom cabinet ass'y
Procedure 2	

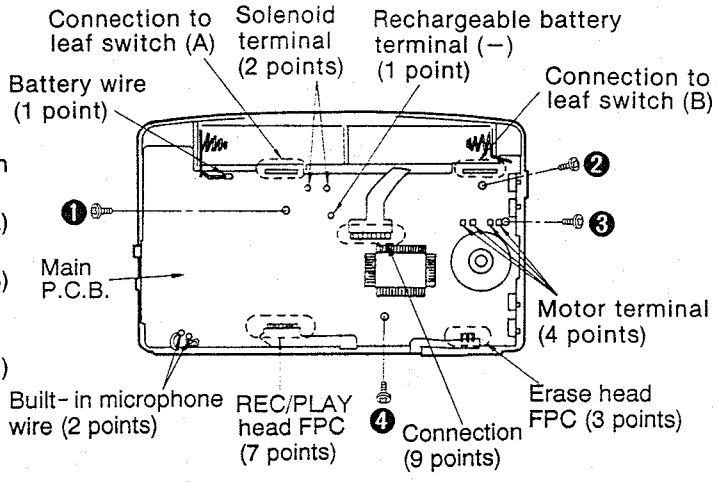




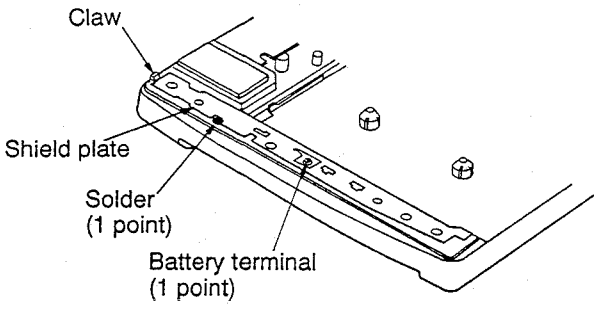
1. Remove the battery cover.
2. Remove the 8 screws (❶~❽).
3. Remove the bottom cabinet ass'y in the direction of arrow.

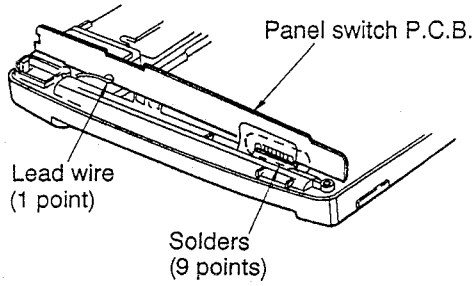
Ref. No. 3	Removal of the main P.C.B.
Procedure 1→2→3	

1. Remove the 4 screws (❶~❹).
2. Unsolder the REC/PLAY head FPC (7 points).
3. Unsolder the Erase head FPC (3 points).
4. Unsolder the connection between panel switch P.C.B. and main P.C.B. (9 points).
5. Unsolder the connection between leaf switch (A) and main P.C.B. (4 points).
6. Unsolder the connection between leaf switch (B) and main P.C.B. (4 points).
7. Unsolder the solenoid terminal (2 points).
8. Unsolder the rechargeable battery terminal (−) (1 point).
9. Unsolder the battery wire (1 point).
10. Unsolder the built-in mirophone wire (2 points).
11. Unsolder the motor terminal (4 points).



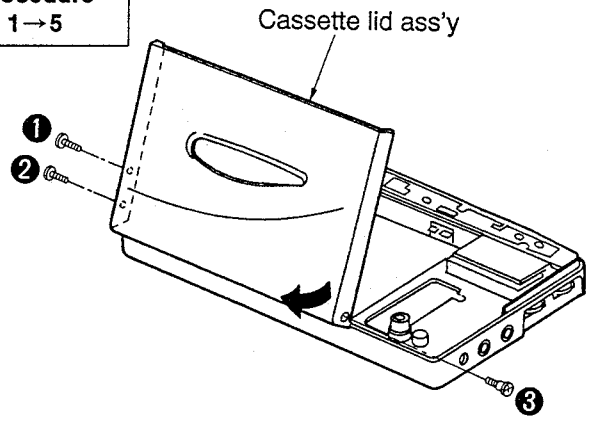
Ref. No. 4	Removal of the panel switch P.C.B.
Procedure 1→4	





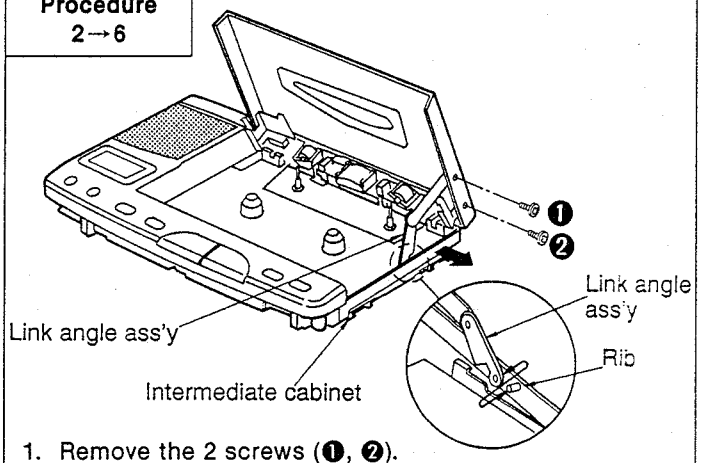
1. Unsolder the shield plate (1 point).
2. Unsolder the battery terminal (1 point).
3. Release the claw.
4. Unsolder the lead wire (1 point).
5. Unsolder the panel switch P.C.B. (9 points).

Ref. No. 5	Removal of the cassette lid ass'y
Procedure 1→5	



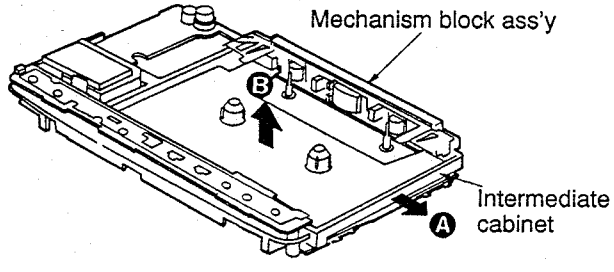
1. Remove the 3 screws (❶~❸).
2. Remove the cassette lid ass'y in the direction of arrow.

Ref. No. 6	Removal of the link angle ass'y
Procedure 2→6	



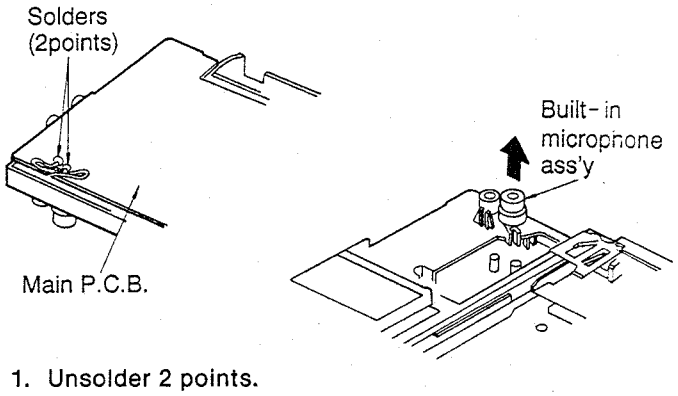
1. Remove the 2 screws (❶, ❷).
2. Stretch the intermediate cabinet in the direction of arrow, and then remove the rib of the link angle ass'y.

Ref. No. 7	Removal of the mechanism block ass'y
Procedure 1→2→3→5 →6→7	



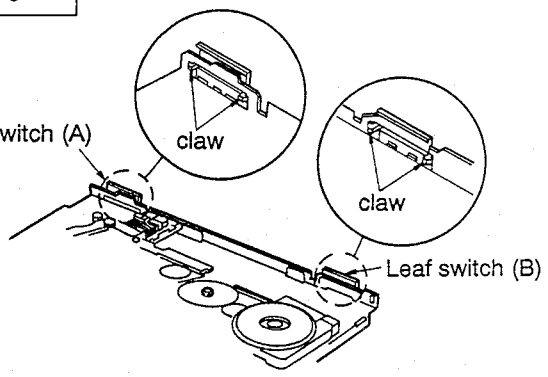
Strech the intermediate cabinet in the direction of arrow Ⓐ, and then remove the mechanism block ass'y in the direction of arrow Ⓑ.

Ref. No. 8	Removal of the built-in microphone ass'y
Procedure 1→2→8	



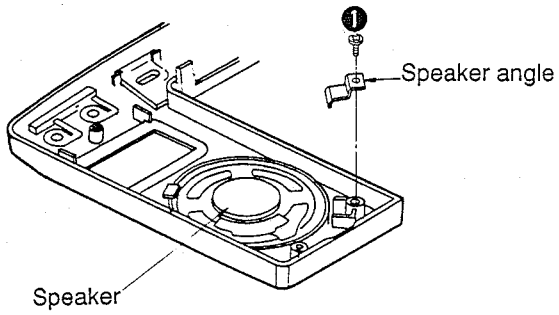
1. Unsolder 2 points.
2. Remove the built-in microphone ass'y in the direction of arrow.

Ref. No. 9	Removal of the leaf switch (A) and the leaf switch (B)
Procedure 1→2→3→6 →7→9	



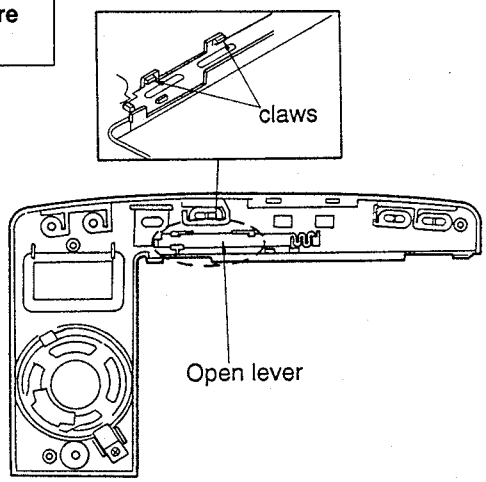
Release the 4 claws.

Ref. No. 10	Removal of the speaker
Procedure 1→10	

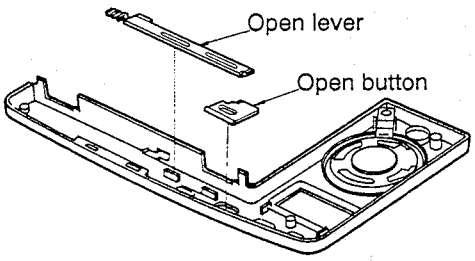


1. Remove the 1 screw (❶).
2. Remove the speaker angle.

Ref. No. 11	Removal of the open knob and the open lever
Procedure 1→11	

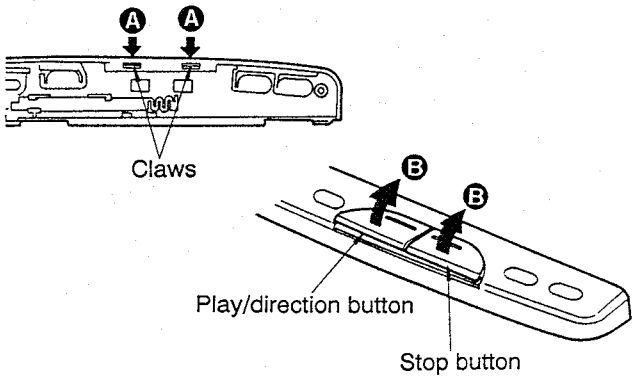


1. Release the 2 claws.



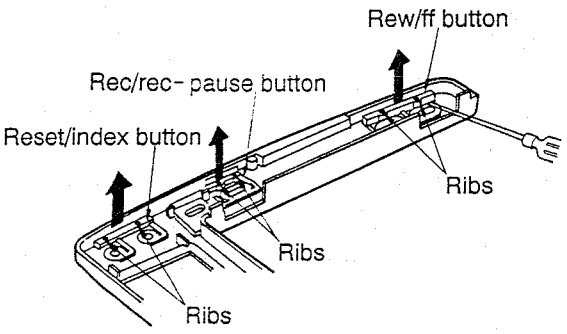
2. Remove the open lever and the open button.

Ref. No. 12	Removal of the stop button and the play/direction button
Procedure 1→12	



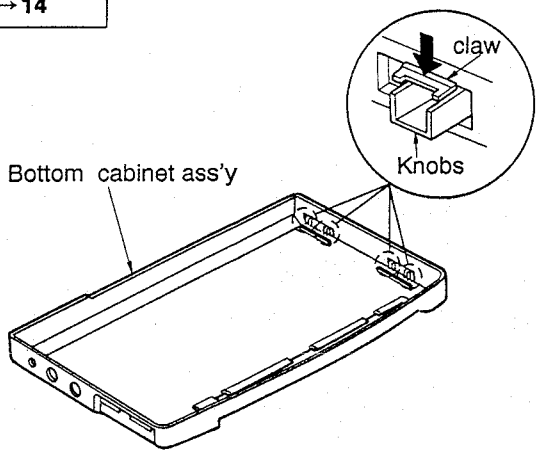
1. Release the 2 claws in the direction of arrow Ⓐ.
2. Remove the stop button and the play/direction button in the direction of arrow Ⓑ.

Ref. No. 13	Removal of the rew/ff button, the rec/rec-pause button and the reset/ index button
Procedure 1→13	



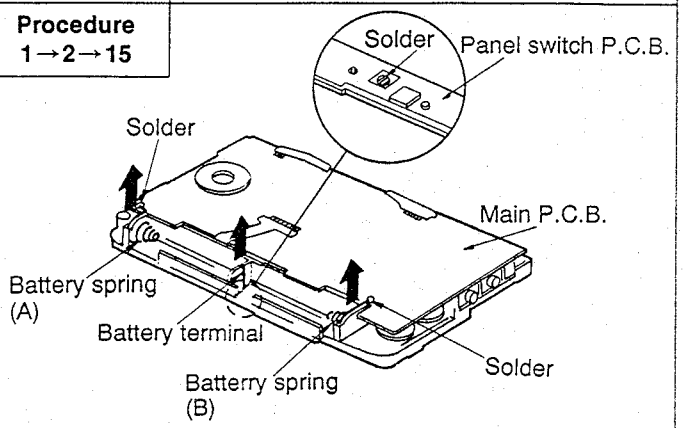
- Remove the reset/index buttons, the rec/rec-pause buttons, and the rew/ff buttons by used ⊖ screwdriver or similar tool in the direction of arrow.

Ref. No. 14	Removal of the knobs
Procedure 2→14	



Push the claw in the direction of arrow, remove the knobs.

Ref. No. 15	Removal of the battery spring A, the battery spring B and the battery terminal
Procedure 1→2→15	



■ **Removal of the battery spring (A) and the battery spring (B)**

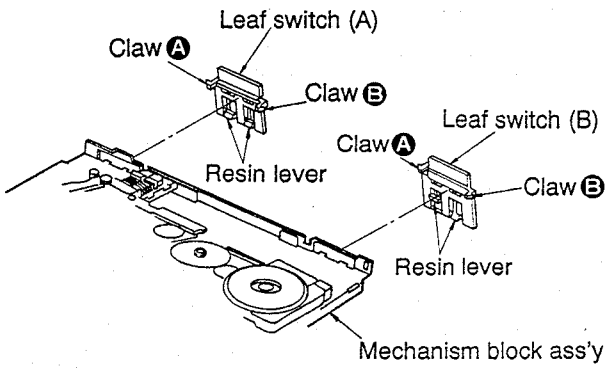
- Unsolder 2 points, remove in the direction of arrow.

■ **Removal of the battery terminal**

- Unsolder the panel switch P.C.B. (2 points), in the direction of arrow.

Notes for assembly

■ Notice for install the leaf switch (A) and the leaf switch (B)



- Insert claws Ⓐ and Ⓑ off leaf switches (A) and (B) in that order.

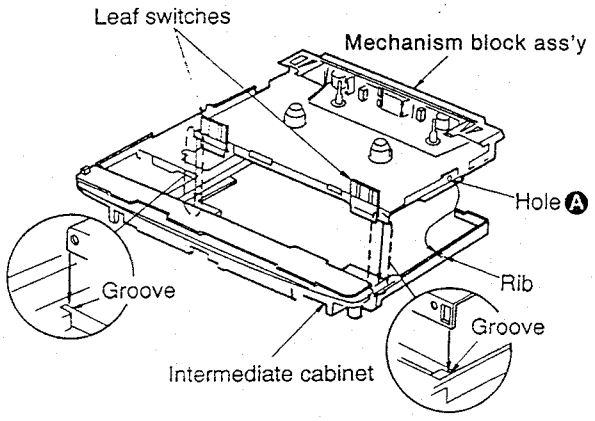
Caution: Do not hold the resin levers of the leaf switches as their leaf springs tend to defrom.

■ Precations for assembling the main P.C.B.

1. Ensure the boss of switch matches the mechanism lever position before assembly.
2. Insert battery springs (A) and (B) into the corresponding grooves of the intermediate cabinet.

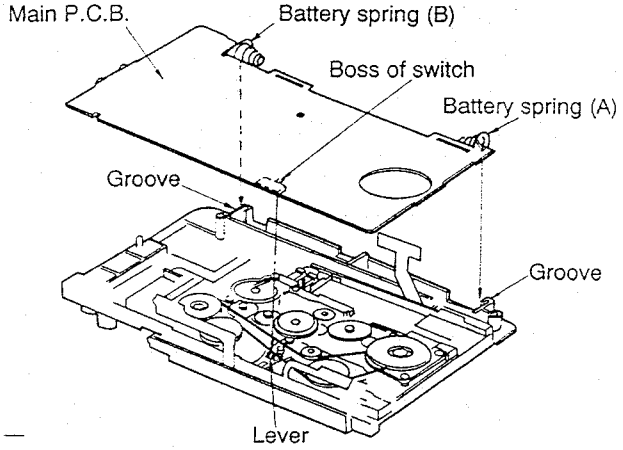
Caution: Make sure that battery springs (A) and (B) are properly positions in the grooves so that they will never move out of position.

■ Notice for install the mechanism block ass'y

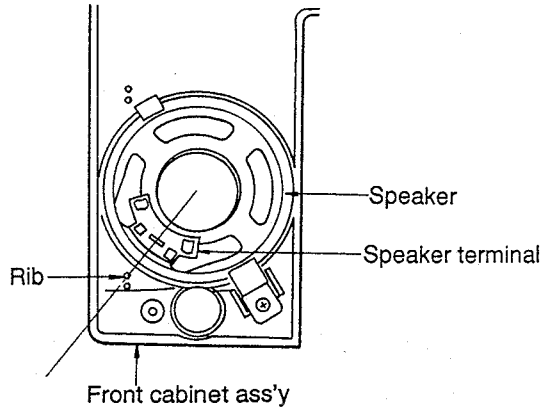


1. Insert the mechanism block ass'y into the groove in the intermediate cabinet.
2. Place the rib of the intermediate cabinet into hole Ⓐ of the mechanism block ass'y.

Caution: Make sure the leaf switches are never removed from the intermediate cabinet.

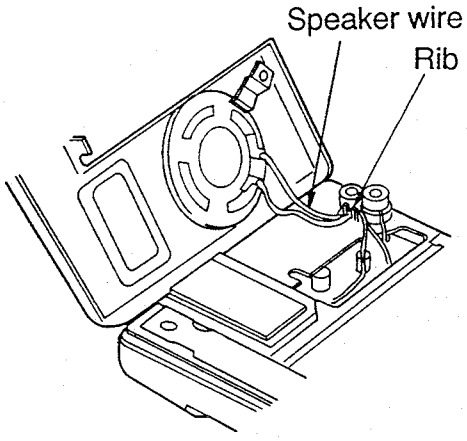


■ Notice for install the speaker



• To install the speaker, direct the speaker terminal to the ribs of the front cabinet ass'y.

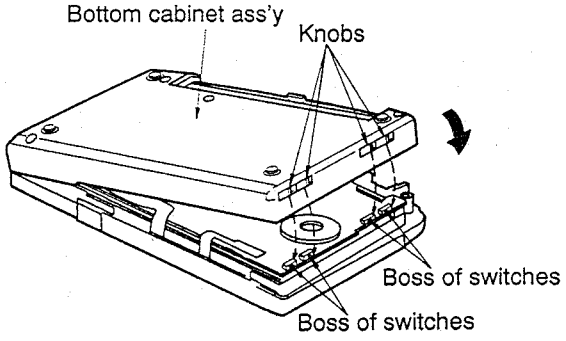
■ About the speaker wire processing



• Pass the speaker wires through the ribs as illustrated above.

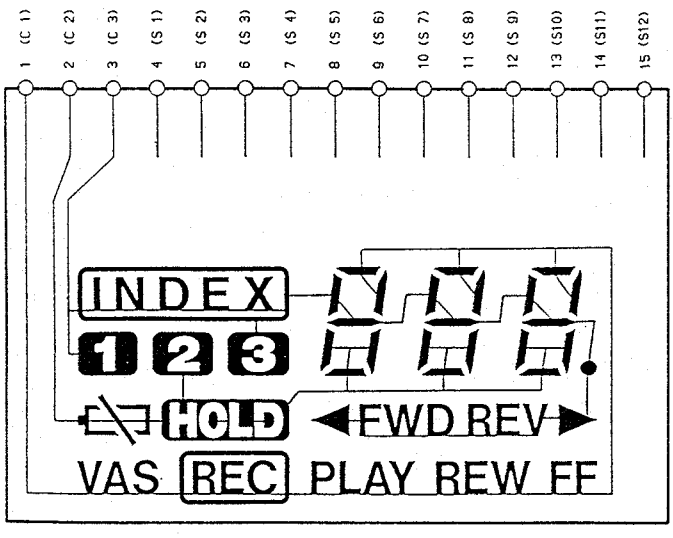
■ Notice for install the bottom cabinet ass'y

1. Engage the boss of switches in the knobs.
2. After install the bottom cabinet ass'y, move the knobs and confirm it is inserted compleetely.

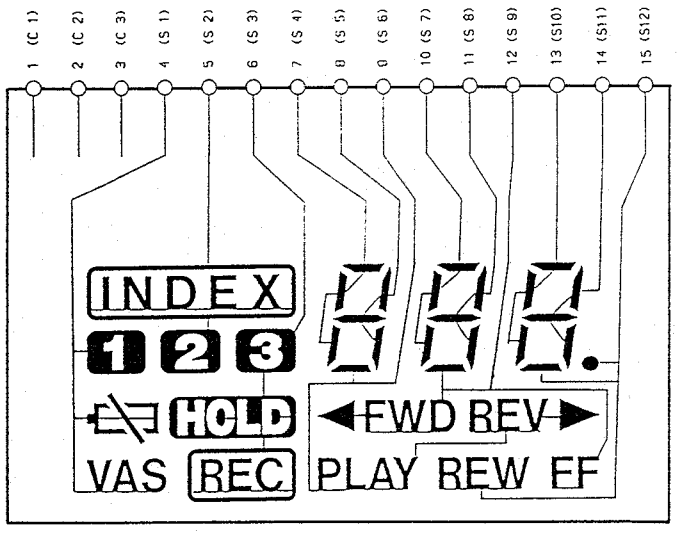


■ INTERNAL CONNECTION OF LCD

• Common connection diagram



• Segment connection diagram



■ MEASUREMENTS AND ADJUSTMENTS

●ADJUSTMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ADJUSTMENTS	
1. Set volume control to maximum. 2. Set hold switch to OFF.	3. Set power source voltage to 1.5V DC.

• CONTROL POSITIONS AND EQUIPMENT USED

1. Frequency counter

●TAPE SECTION

ITEM	TEST TAPE	MEASUREMENT POINT	ADJUSTMENT POINT	PROCEDURE
Recording Tape speed	QZZCWAT (3kHz, −10dB)	Connect the frequency counter to Headphones jack (16Ω) (Refer to Fig. 1)	VR3 (Refer to Fig. 2)	Unsolder the short land and playback the central part of the tape. Adjust VR3 so that the tape speed is as follows. Forward: 3000±10Hz Reverse: 3000±60Hz Make sure that the frequency range in within ±60Hz for between "Forward" and "Reverse" mode.

ITEM	TEST TAPE	MEASUREMENT POINT	ADJUSTMENT POINT	PROCEDURE
Playback Tape speed	QZZCWAT (3kHz, −10dB)	Connect the frequency counter to Headphones jack (16Ω) (Refer to Fig. 1)	VR4 (Refer to Fig. 2)	Solder the short land and playback the central part of the tape. Adjust VR4 so that the tape speed is as follows. Forward: 3000±10Hz Reverse: 3000±60Hz Make sure that the frequency range in within ±60Hz for between "Forward" and "Reverse" mode.

Notes: • After the record/playback tape speed adjusting, keep the short land with a soldering and then short-circuit it.
• The playback head is supplied on the head arm assembly. (See the Mechanism parts location on page) The assembly reguires no adjustment.

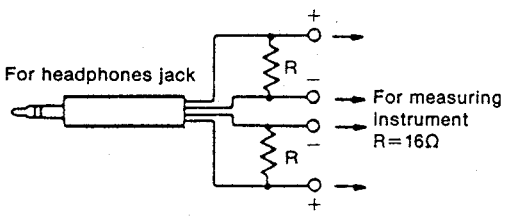


Fig. 1

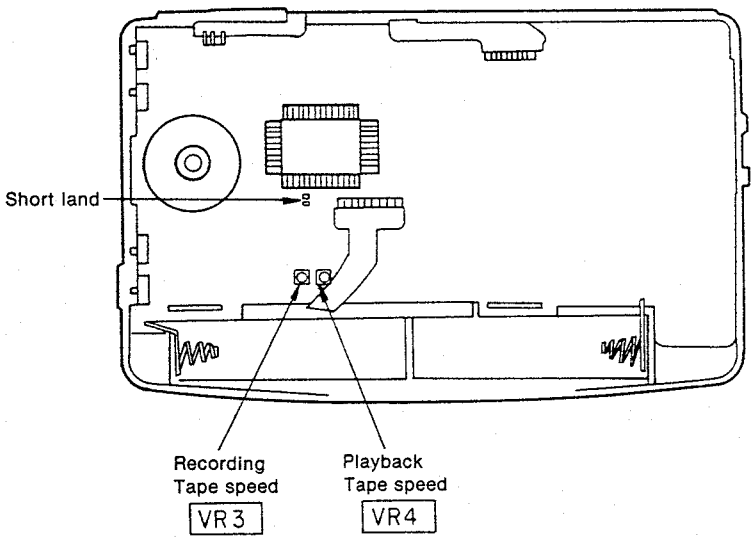


Fig. 2

■ HOW TO CHECK OPERATIONS DURING DISASSEMBLY AND SERVICING

Cassette section

• Check operations during disassembly following the steps.

1) Set the condition as shown in Fig. 1 in accordance with Disassembly Instructions. (DO NOT remove the solders on the head FPC.)
2) Connect the PCB and motor with the extension cord (RFKZ0002).
3) Short the short land with a soldering and then short-circuit them.
   • Short the short land Ⓐ for speed of motor ON.
   • Short the short land Ⓑ for pre-mute ON.
   • Short the short land Ⓒ for power supply of power amp ON.
   • Short the short land Ⓓ for power supply of motor ON.
   • Short the short land Ⓔ for open/close SW ON.
   • Short the short land Ⓕ for microcomputer reset.

   Note: See next page for the points to be short-circuited.
4) Connect the battery (+) terminal foil and the battery (−) terminal to the power source (DC 1.5V) with a lead wire. (Fig. 1)
5) Connect the connection terminal and the battery (−) terminal with a lead wire (mechanism earth).
6) Manually operate the plunger arm when checking the PLAY/STOP operation.
   • Manually pulling the plunger arm once sets the FWD mode; twice, REV; and, three times, STOP.

   Notes: • Operate the plunger arm manually. Even if the operation buttons are pressed, the plunger will not be actuated.
   • Even if the mechanism unit is switched to the FWD mode in Step 6, the head change-over switch (IC1) will remain in the REV position, so set the REV mode to check the audio.
   Before checking the operation problems and adjustments, be sure to release the hold state.
   (Hold switch (S9): "OFF")
   • After checking, unsolder the short land Ⓐ, Ⓑ, Ⓒ, Ⓓ, Ⓔ and Ⓕ.

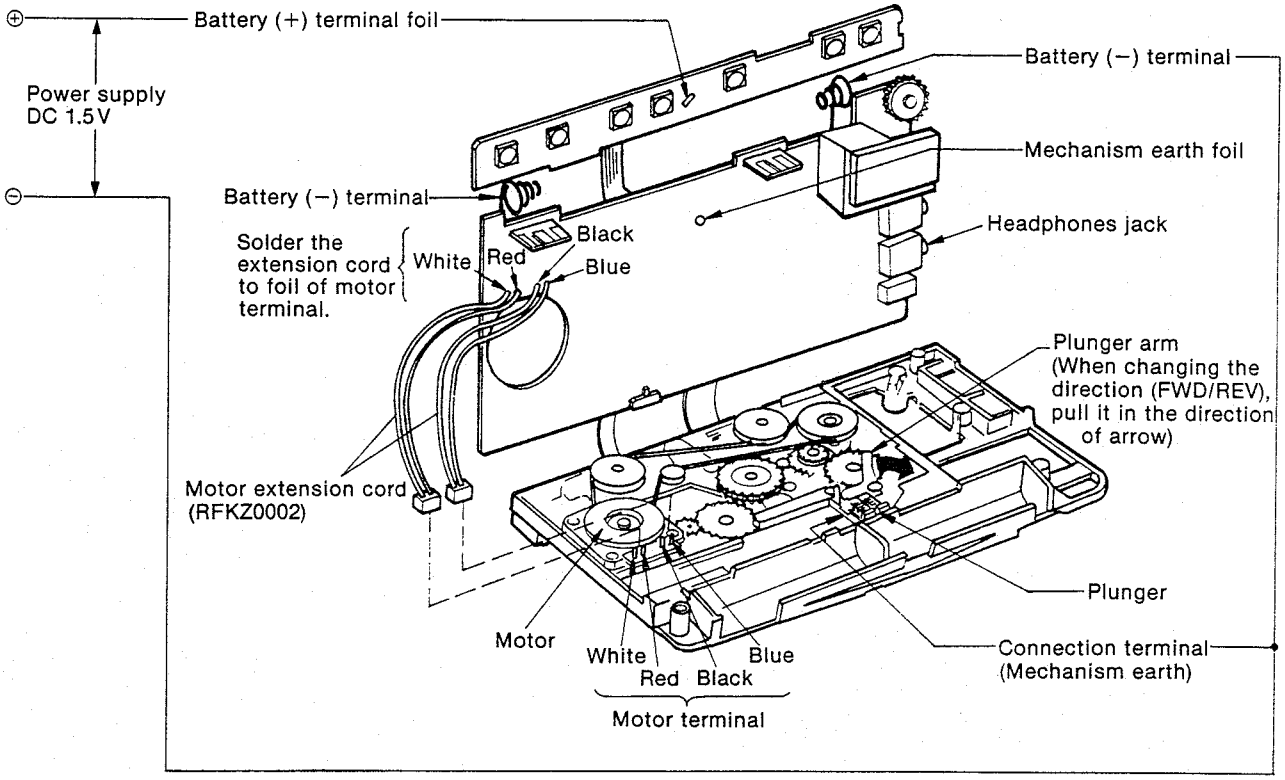
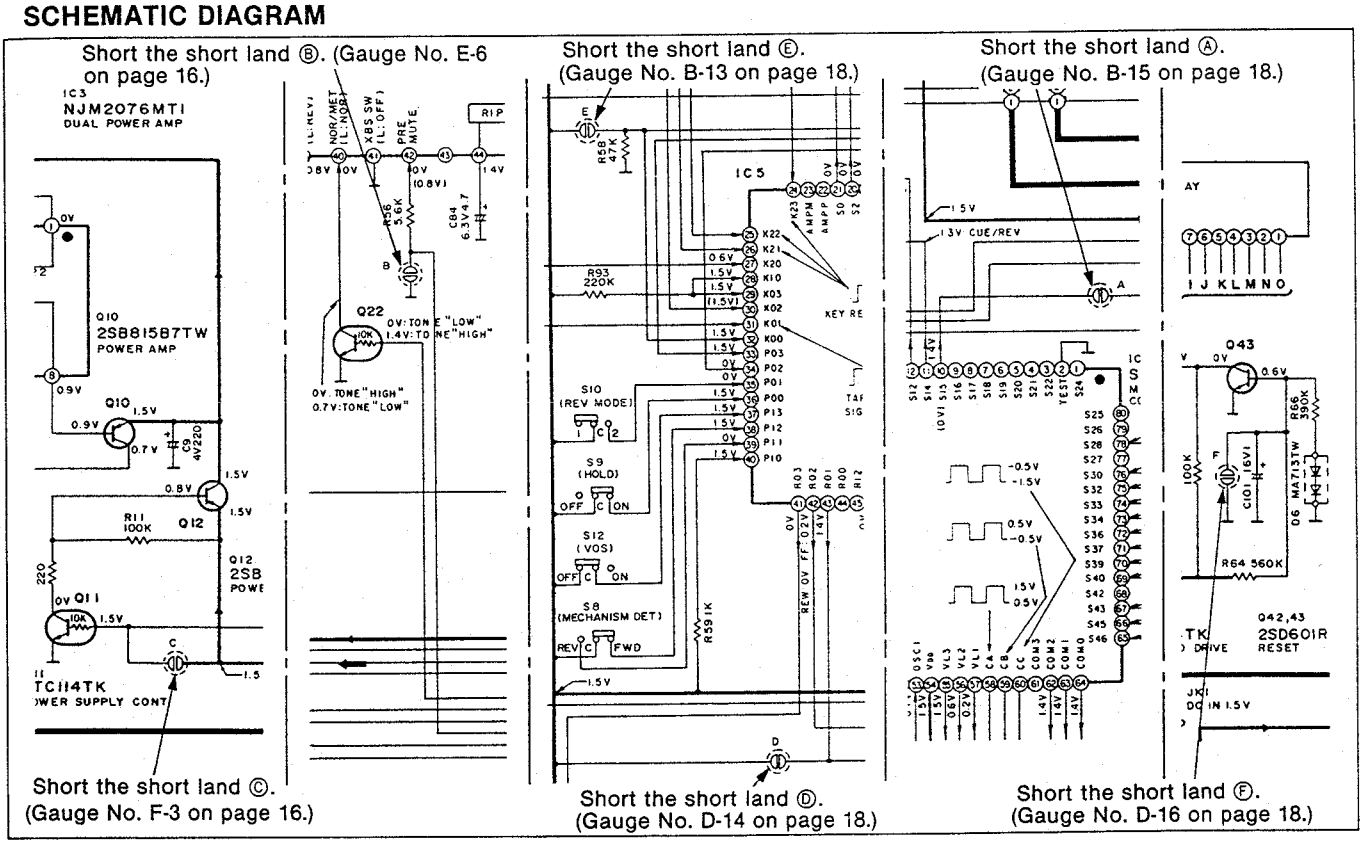


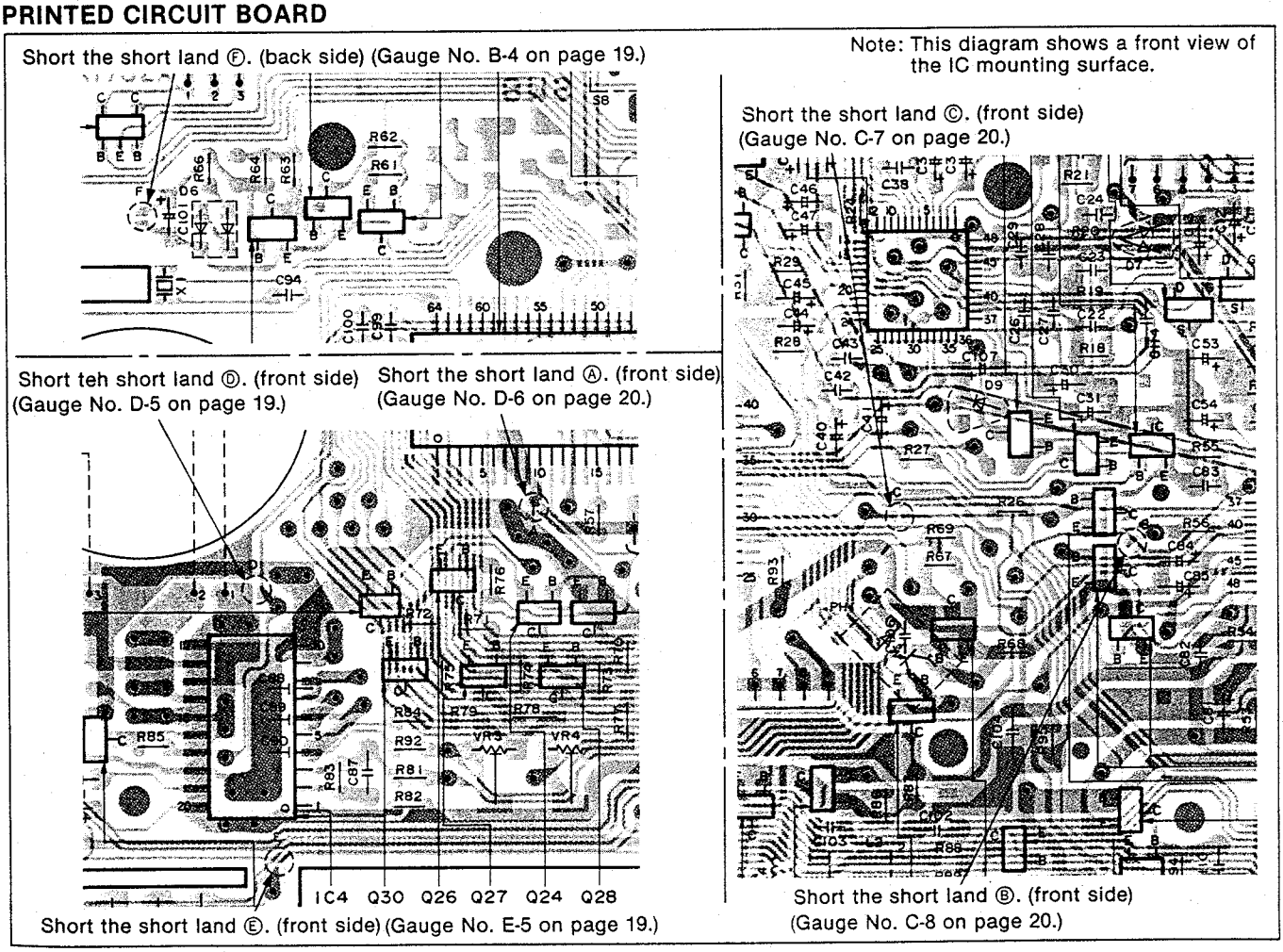
Fig. 1

- **Short points**

SCHEMATIC DIAGRAM


Short the short land Ⓑ. (Gauge No. E-6 on page 16.)
Short the short land Ⓔ. (Gauge No. B-13 on page 18.)
Short the short land Ⓐ. (Gauge No. B-15 on page 18.)
IC3
NJM2076MTI
DUAL POWER AMP
Q10
2SB815B7TW
POWER AMP
Q22
IC5
Short the short land Ⓒ. (Gauge No. F-3 on page 16.)
Short the short land Ⓓ. (Gauge No. D-14 on page 18.)
Short the short land Ⓕ. (Gauge No. D-16 on page 18.)

PRINTED CIRCUIT BOARD


Short the short land Ⓕ. (back side) (Gauge No. B-4 on page 19.)
Note: This diagram shows a front view of the IC mounting surface.
Short the short land Ⓒ. (front side) (Gauge No. C-7 on page 20.)
Short teh short land Ⓓ. (front side) (Gauge No. D-5 on page 19.)
Short the short land Ⓐ. (front side) (Gauge No. D-6 on page 20.)
IC4 Q30 Q26 Q27 Q24 Q28
Short the short land Ⓔ. (front side) (Gauge No. E-5 on page 19.)
Short the short land Ⓑ. (front side) (Gauge No. C-8 on page 20.)

■ SCHEMATIC DIAGRAM

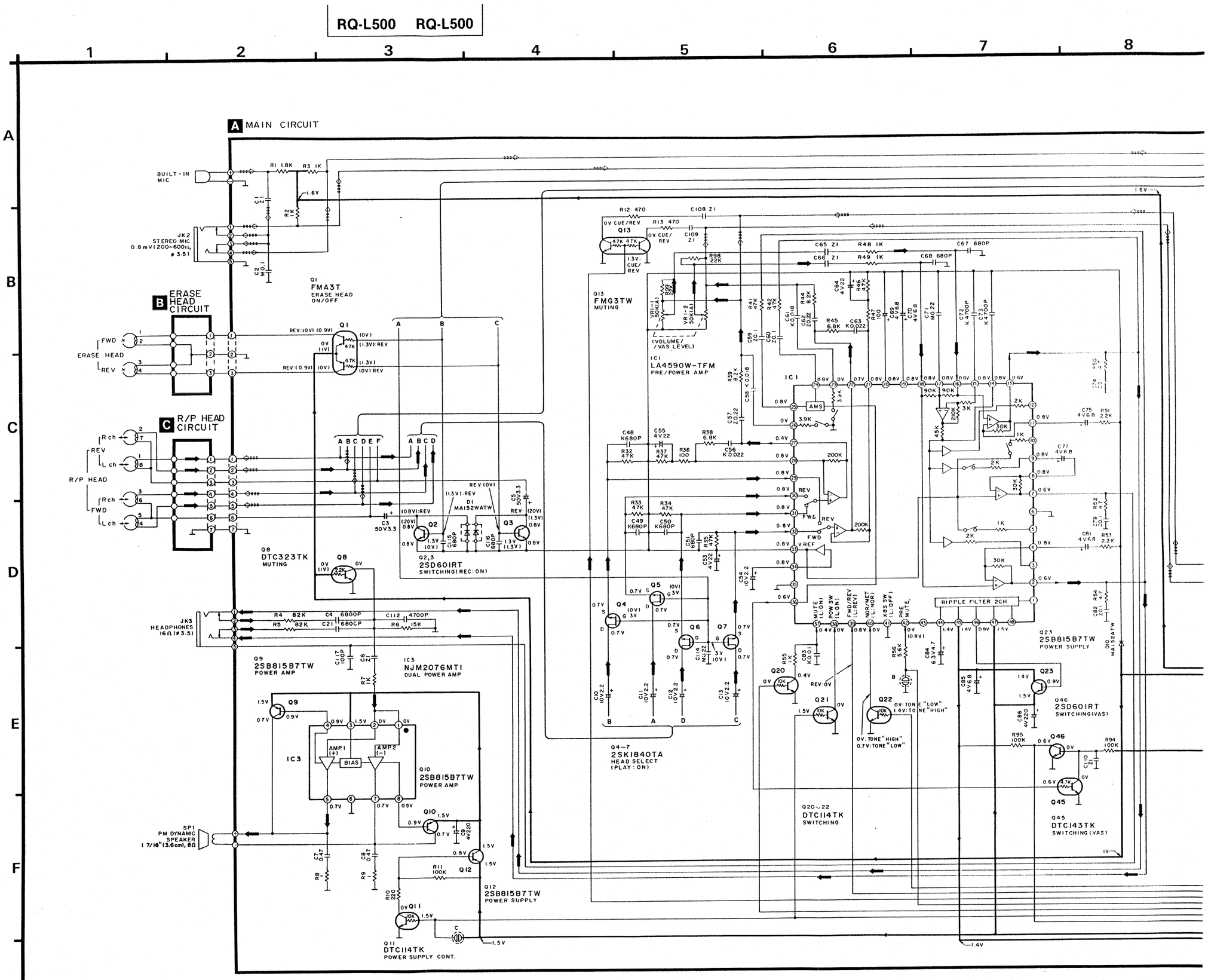
(See page list on pages 25~27.)

Notes:

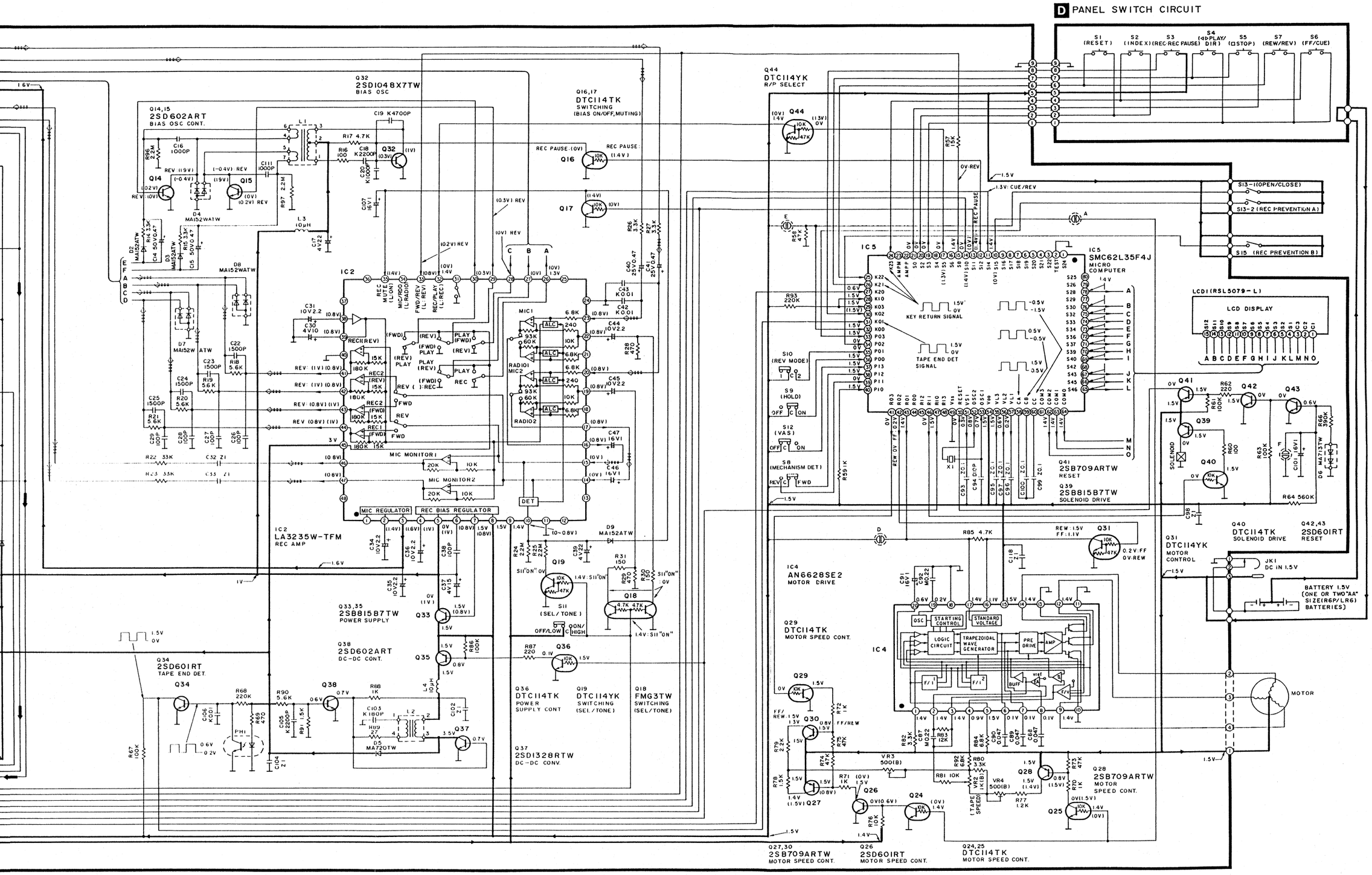
- **S1** : Reset (RESET) switch.
- **S2** : Index (INDEX) switch.
- **S3** : Record/record pause (REC•REC PAUSE) switch.
- **S4** : Play/direction (PLAY/DIR) switch.
- **S5** : Stop (STOP) switch.
- **S6** : Fast forward/cue (FF/CUE) switch.
- **S7** : Rewind/review (REW/REV) switch.
- **S8** : Mechanism detect (FWD/REV) switch in "F. FWD" position.
- **S9** : Hold (HOLD) switch.
- **S10** : Reverse mode selector in "1" position. (1...⊃: P.B, REC, 2...⊂⊃: P.B/⇄: REC)
- **S11** : SLE/tone selector in "OFF" position.
- **S12** : VAS switch.
- **S13-1** : Open/close detect switch in "OPEN" position.
- **S13-2** : Rec. inhibit for side A switch in "OFF" position.
- **S15** : Rec. inhibit for side B switch in "OFF" position.
- **VR1** : Volume/VAS level adjustment VR.
- **VR2** : Tape speed adjustment VR.
- **VR3** : Recording tape speed adjustment VR.
- **VR4** : Playback tape speed adjustment VR.
- DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
  No mark...Playback, ( )...Recording
- Consumed current:
  - No signal 173mA
  - Max. Tape (playback)... 254mA (10% distortion) 274mA (C-LB VR Max.) E
  - Tape (record) 240mA
- Signal line
  ▬▶ : +B line, ▬▶ : Playback signal, ▭▭▷ : Recording signal
- The supply part number is described alone in the replacement parts list.

Ref. No.	Production part No.	Supply Part No.
D2, 3, 9, 10	MA152ATW	MA152WA
D1, 4, 7, 8	MA152WATW	MA152WA

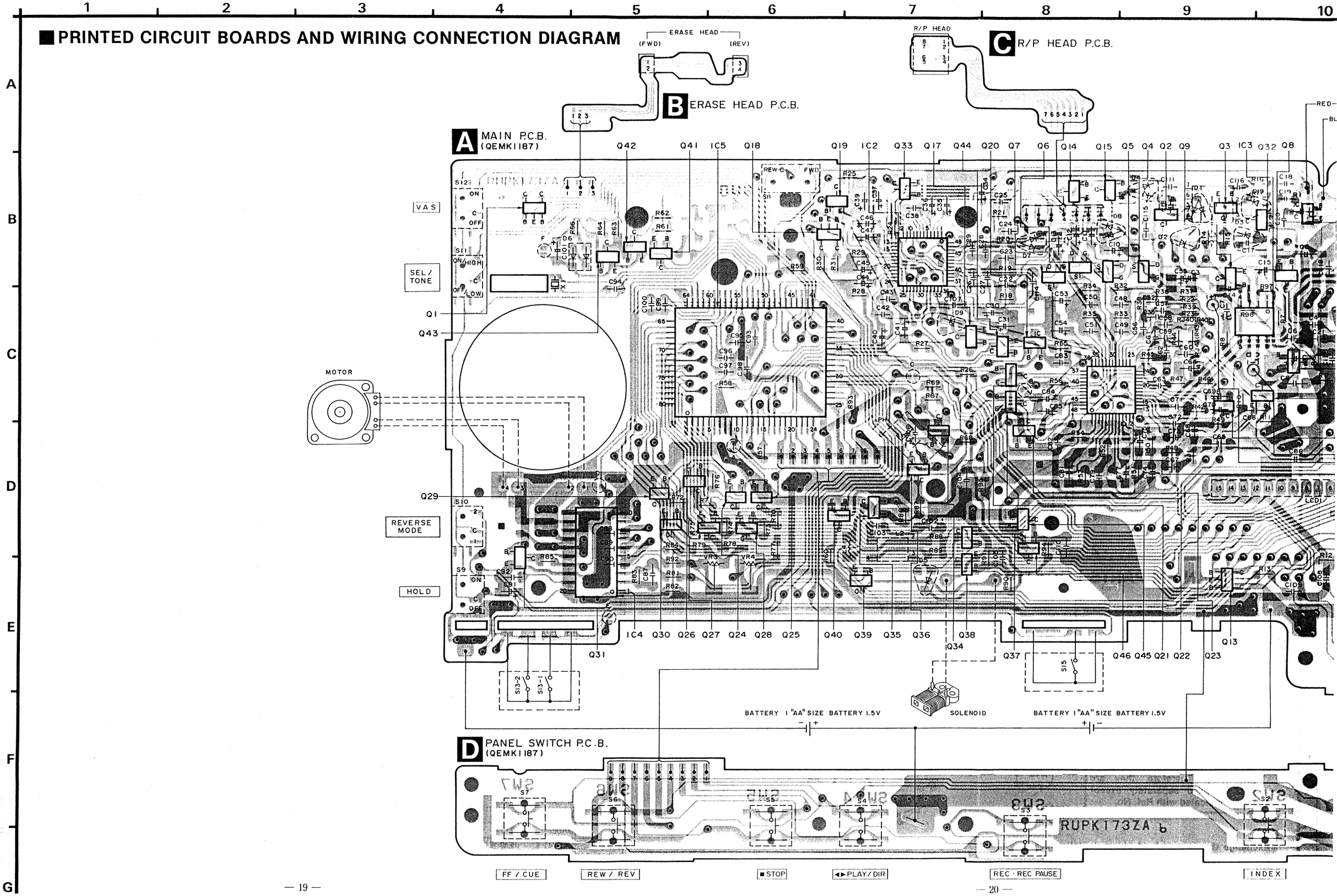
- This schematic diagram may be modified at any time with the development of new technology.

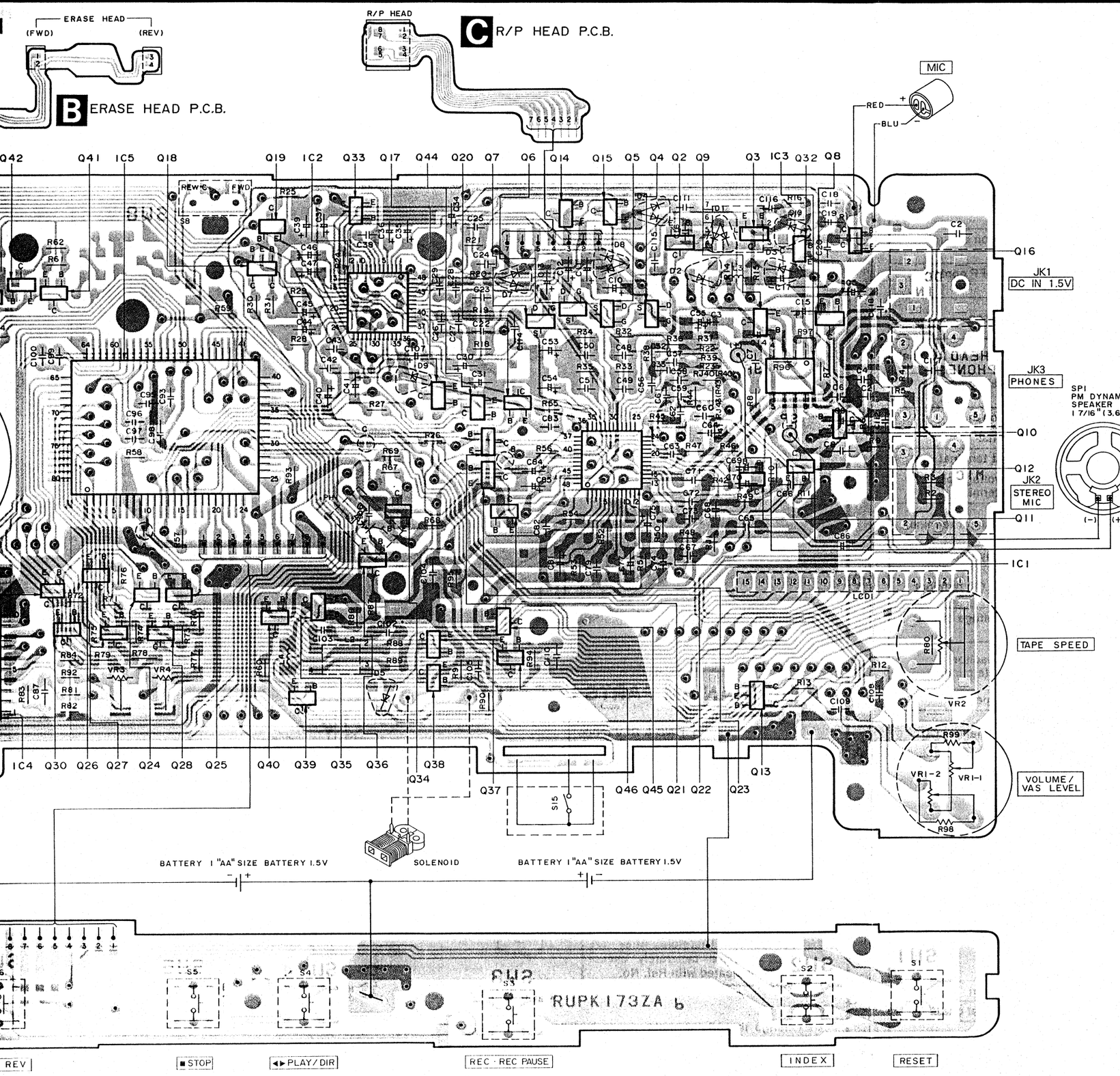


8 9 10 11 12 13 14 15 16 17



■ PRINTED CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM





Notes:

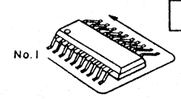
- In this printed circuit board diagram, the parts and foil patterns on the board facing toward you are printed in black.
  The opposite side is printed in blue.
- The " • " mark denotes the connection points of double-faced foil patterns (through holes) on both side of the printed circuit board.
- This printed circuit board diagram may be modified at any time with the development of new technology.

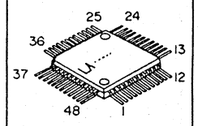
Notes:

RED.....Red
BLU.....Blue

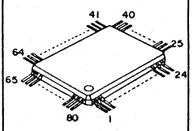
• Terminal guide of IC's transistors and diodes

NJM2076MT1	8 Pin	LA3235W-TFM LA4590W-TFM
AN6628SE2	20 Pin	





SMC62L35F4J



FMA3T
FMG3TW

2SK1840TA

DTC114TK
DTC114YK
DTC143TK
DTC323TK
2SB709ARTW
2SB815B7TW
2SD601RT

2SD602ART
2SD1048X7TW
2SD1328RTW

MA152WATW

MA152ATW

MA720TW

MA713TW

■ TERMINAL FUNCTION OF IC

• IC5 (SMC62L35F4J): Microcomputer

Pin No.	Mark	I/O Division	Function
1	S24	—	Not used, open
2	TEST	I	Test terminal
3 ⟆ 9	S22 ⟆ S16	—	Not used, open
10	S15 (M. SPEED CONT)	O	Motor speed control terminal
11	S14 (HALF MUTE)	O	Half mute control terminal
12	S12 (BEEP)	O	Remote control terminal
13	S11 (MUTE)	O	Power amp muting signal
14	S10 (PRE MUTE)	O	Pre-mute control terminal
15	S8 (REV)	O	Reverse mode (FWD/REV) select terminal
16	S6 (REC MUTE)	O	Record mute control terminal (Not used, open)
17	S5 (REC)	O	Record/playback select terminal
18	S4 (LED BLINK)	O	LED flashing signal of skip reverse and rewind auto play (Not used, open)
19	S3 (KEY SOURCE 0)	O	Strobe terminal of key scan
20	S2 (KEY SOURCE 1)		
21	S0 (KEY SOURCE 2)		
22	AMPP	—	Not used, open
23	AMPM		
24 ⟆ 26	K23 ⟆ K21	I	Key matrix terminal
27	K20 (VOS SIG)	I	Start signal of VOS
28	K10 (REM 1)	I	Remote control of 1 button terminal
29	K03 (REM 2)	I	Record start/stop of remote control terminal
30	K02 (REC/REC PAUSE)	I	Record start/pause control terminal
31	K01 (T. END)	I	Reel sensor pulse (counter signal) terminal
32	K00 (OPEN DET.)	I	Cassette insertion detect terminal
33	P03 (REC CHECK A)	I	Record inhibition of A side detect terminal
34	P02 (REC CHECK B)	I	Record inhibition of B side detect terminal
35	P01 (REV. MODE)	I	Reverse mode select terminal
36	P00 (HOLD)	I	Key hold terminal
37	P13 (VOS)	I	Audio record start/pause function select terminal

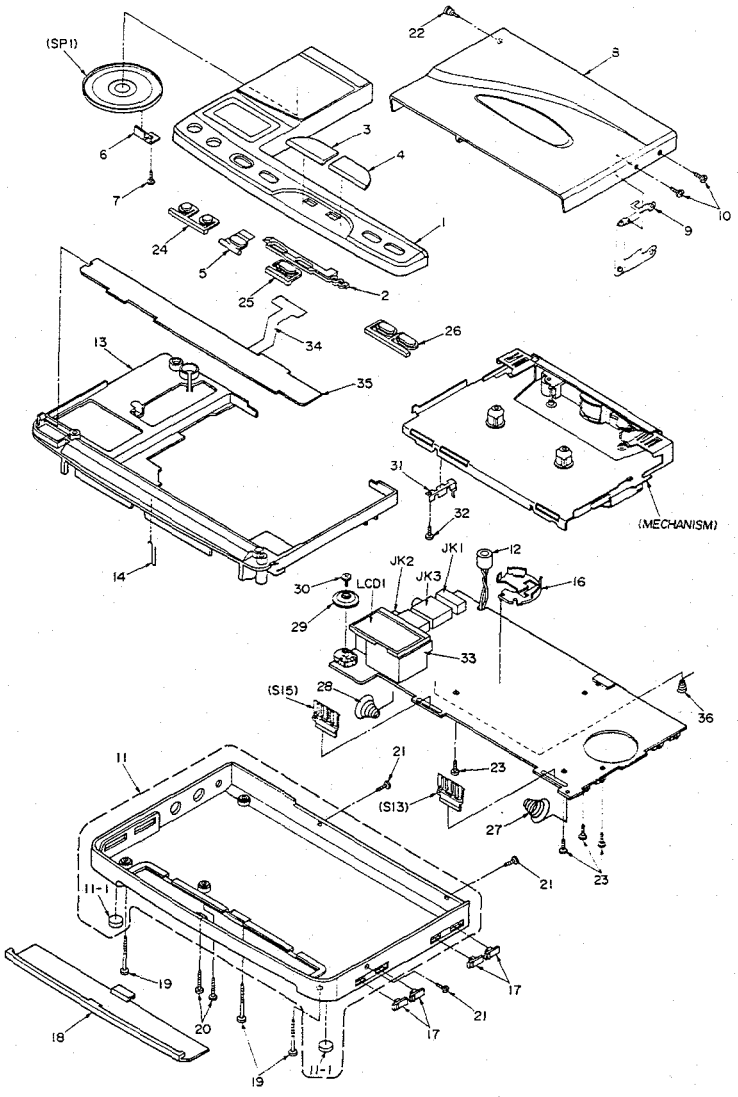
Pin No.	Mark	I/O Division	Function
38	P12 (FWD SW)	I	Mechanism playback (FWD) condition detect terminal
39	P11 (REV SW)	I	Mechanism playback (REV) condition detect terminal
40	P10 (LO. BATT CHECK)	I	Battery consumption detect terminal
41	R03 (SPEED)	O	Motor speed control terminal
42	R02 (CCW)	O	Motor rotation control terminal
43	R01 (MOTOR)	O	Motor ON/OFF control terminal
44	R00	—	Not used, open
45	R12		
46	R11 (SOLENOID)	O	Playback solenoid terminal
47	R10 (POWER 1)	O	Amp. operating control terminal
48	R13	—	Not used, open
49	V_{SS}	—	GND terminal
50	RESET	I	Initial reset terminal
51	VS1	O	Constant voltage of oscillator terminal
52	OSC2	O	Crystal oscillator terminal
53	OSC1	I	
54	V_{DD}	I	Power supply terminal
55	VL3	O	Booster of LCD terminal
56	VL2		
57	VL1	O	Constant voltage of LCD terminal
58 ⟆ 60	CA ⟆ CC	—	Booster capacitor connection terminal
61	COM3	—	Not used, open
62 ⟆ 64	COM2 ⟆ COM0	O	Common signal of LCD
65	S46	O	Segment signal of LCD
66	S45		
67	S43		
68	S42	—	Not used, open
69	S40	O	Segment signal of LCD
70	S39		
71	S37		
72	S36		
73 ⟆ 75	S34 ⟆ S32		
76	S30		
77	S29	—	Not used, open
78	S28	O	Segment signal of LCD
79	S26	—	Not used, open
80	S25		

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RFKKQL500C	FRONT CABINET ASS'Y	
2	RKCK2ZA	OPEN LEVER	
3	RBCK240ZA	BUTTON, PLAY/DIRECTION	
4	RBCK241ZA	BUTTON, STOP	
5	RBCK245ZA	BUTTON, OPEN	
6	RMSK6ZA	SPEAKER ANGLE	
7	XQN2+AJ6FZ	SCREW	
8	RFKLQL500A	CASSETTE LID ASS'Y	
9	1MMAKL500ZA	LINK ANGLE ASS'Y	
10	RHQK0001-K	SCREW	
11	RFKKQL500B	BOTTOM CABINET ASS'Y	
11-1	RHGK723ZA	FOOT	
12	QEQK0465	BUILT-IN MICROPHONE ASS'Y	
13	RUAK67ZA	INTERMEDIATE CABINET	
14	RJCK930007ZA	BATTERY TERMINAL	
16	RKU0034	CG CAP	
17	RBDK90ZA	KNOB, HOLD/REVERSE/TONE/VAS	
18	RKKK28ZA	BATTERY COVER	
19	XTN2+18JFZ	SCREW	
20	XQN14+CJ6FZ	SCREW	
21	RHQ0002-K	SCREW	
22	RHD14008-K	SCREW	
23	RHE5119ZA	SCREW	
24	RBCK244ZA	BUTTON, RESET/INDEX	
25	RBCK242ZA	BUTTON, REC·REC PAUSE	
26	RBCK243ZA	BUTTON, REW/REV, FF/CUE	
27	RJCK70009ZA	BATTERY SPRING A	
28	RJCK70010ZA	BATTERY SPRING B	
29	RBT325ZA-0	KNOB, VOLUME/VAS LEVEL CONT.	
30	XSHR17+2FZ	SCREW	
31	RJR0053	CONNECTION TERMINAL	
32	XQN14+AM14FN	SCREW	
33	QEQK0466	LCD PLATE	
34	RUPK174ZA	FPC BOARD	
35	RFKBQL500	PANEL SWITCH P.C.B.	
36	RJTK312ZA	EARTH SPRING	
		MECHANISM	
101	HPX-24NB1AT	MOTOR	
102	XQS14+A18FZ	SCREW	
103	RDV0016	BELT	
104	RXQ0245-K	HEAD BLOCK ASS'Y	
104A	RNW101ZA	WASHER	
104B	RME0040	PINCH ROLLER SPRING(L)	
104C	RME0113	PINCH ROLLER SPRING(R)	
104D	RXL0004-1	PINCH ROLLER ARM(L)	
104E	RXL0005	PINCH ROLLER ARM(R)	
104F	RMB0245	HEAD ARM SPRING	
105	RMA0023	HOLDER(R)	
106	XQN14+A3	SCREW	
107	RHW42002	WASHER	
108	RFKRQL500N	MECHANISM BLOCK ASS'Y	
108A	RMQ0292	HOLD PIECE(L)	
108B	RMQ0293	HOLD PIECE(R)	
108C	RHD14031	SCREW	
		PACKING MATERIAL	
P1	RPKK1161ZA	GIFT BOX	
P2	RPNK3076ZA	CUSHION	
P3	RPEK161ZA	PAD	
P4	RPEK151ZA	SHEET	
		ACCESORIES	
A1	RFKSQL500PCK	INSTRUCTION MANUAL ASS'Y	(PC)
A1	RQXK4137ZA	INSTRUCTION MANUAL	(P)
A2	RQA0061	WARRANTY CARD	(P)
A2	RQX7521ZC	WARRANTY CARD	(PC)
A3	RQX9028ZD	SERVICENTER LIST	(P)
A3	RQX9170ZD	SERVICENTER LIST	(PC)
A4	RP-HV135SY-0	STEREO EARPHONES	
A5	RPEM101PS	EXTERNAL STEREO MICROPHONE	
A6	RP-AC11PY-K	AC ADAPTOR	⚠
A7	RQDK105ZA	CARRYING BAG	
A8	RKB205ZA-0	EAR PAD	

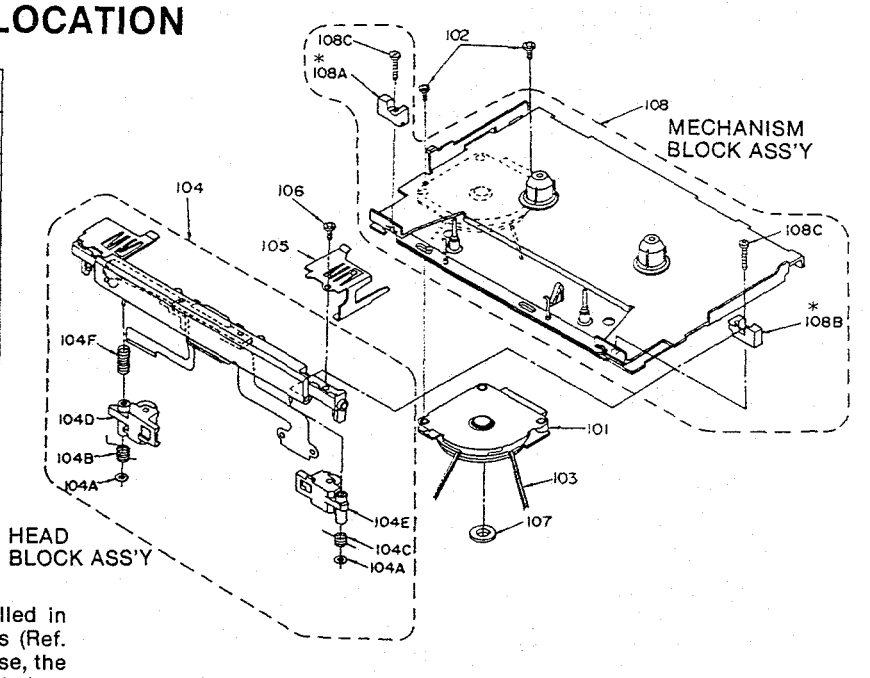
■ CABINET PARTS LOCATION



■ MECHANISM PARTS LOCATION

	FWD & REV mode
Wow and flutter	0.3% (WRMS)
Pressure of pinch roller	120±20g
Take-up tension	More than 60g
Playback torque	20^{+15}_{-5} g • cm
FF/REW torque	More than 60g • cm

The parts enclosed in the dotted boxes are supplied as a block assembly. Therefore, they are not supplied separately except parts indicated with Ref. No.



Note:

*Exchange the original hold pieces installed in the mechanism with the new hold pieces (Ref. No. 108A, 108B) when repairing. Otherwise, the head block (Ref. No. 104) cannot be installed.

■ RESISTORS AND CAPACITORS

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1	ERJ6GEYJ182V	1/10W 1.8K
R2, 3	ERJ6GEYJ102V	1/10W 1K
R4, 5	ERJ6GEYJ823	1/10W 82K
R6	ERJ6GEYJ153V	1/10W 15K
R7	ERJ6GEYJ102V	1/10W 1K
R8, 9	ERJ6GEYJ1R0V	1/10W 1
R10	ERJ6GEYJ221V	1/10W 220
R11	ERJ6GEYJ104V	1/10W 100K
R12, 13	ERJ6GEYJ471V	1/10W 470
R14, 15	ERJ6GEYJ332V	1/10W 3.3K
R16	ERJ6GEYJ101V	1/10W 100
R17	ERJ6GEYJ472V	1/10W 4.7K
R18-21	ERJ6GEYJ562V	1/10W 5.6K
R22, 23	ERJ6GEYJ333V	1/10W 33K
R24, 25	ERJ6GEYJ225V	1/10W 2.2M
R26, 27	ERJ6GEYJ332V	1/10W 3.3K
R28, 29	ERJ6GEYJ471V	1/10W 470
R30, 31	ERJ6GEYJ151V	1/10W 150
R32-35	ERJ6GEYJ473V	1/10W 47K
R36	ERJ6GEYJ101V	1/10W 100
R37	ERJ6GEYJ473V	1/10W 47K
R38	ERJ6GEYJ682V	1/10W 6.8K
R39	ERJ6GEYJ822V	1/10W 8.2K
R41, 42	ERJ6GEYJ473V	1/10W 47K
R44	ERJ6GEYJ822V	1/10W 8.2K
R45	ERJ6GEYJ682V	1/10W 6.8K
R46	ERJ6GEYJ473V	1/10W 47K
R47	ERJ6GEYJ101V	1/10W 100
R48, 49	ERJ6GEYJ102V	1/10W 1K
R50	ERJ6GEYJ4R7V	1/10W 4.7
R51	ERJ6GEYJ222V	1/10W 2.2K
R52	ERJ6GEYJ4R7V	1/10W 4.7
R53	ERJ6GEYJ222V	1/10W 2.2K
R54	ERJ6GEYJ4R7V	1/10W 4.7
R55	ERJ6GEYJ102V	1/10W 1K
R56	ERJ6GEYJ562V	1/10W 5.6K
R57	ERJ6GEYJ153V	1/10W 15K
R58	ERJ6GEYJ473V	1/10W 47K
R59	ERJ6GEYJ102V	1/10W 1K
R60	ERJ6GEYJ101V	1/10W 100
R61	ERJ6GEYJ104V	1/10W 100K
R62	ERJ6GEYJ221V	1/10W 220
R63	ERJ6GEYJ104V	1/10W 100K
R64	ERJ6GEYG564V	1/10W 560K
R66	ERJ6GEYG394V	1/10W 390K
R67	ERJ6GEYJ104V	1/10W 100K
R68	ERJ6GEYJ224V	1/10W 220K
R69	ERJ6GEYJ471V	1/10W 470
R70-72	ERJ6GEYJ102V	1/10W 1K
R73-75	ERJ6GEYJ473V	1/10W 47K
R76	ERJ6GEYJ103V	1/10W 10K
R77	RRSL20J122U	1/8W 1.2K
R78	RRSL20J152T	1/8W 1.5K
R79	ERJ6GEYJ222V	1/10W 2.2K
R80	ERJ6GEYJ332V	1/10W 3.3K
R81	ERJ6GEYJ103V	1/10W 10K
R82	ERJ6GEYJ332V	1/10W 3.3K
R83	ERJ6GEYJ123V	1/10W 12K
R84	ERJ6GEYJ682V	1/10W 6.8K
R85	ERJ6GEYJ472V	1/10W 4.7K
R86	ERJ6GEYJ104V	1/10W 100K
R87	ERJ6GEYJ221V	1/10W 220
R88	ERJ6GEYJ102V	1/10W 1K
R89	ERJ6GEYJ270V	1/10W 27
R90	ERJ6GEYJ562V	1/10W 5.6K
R91	ERJ6GEYJ152V	1/10W 1.5K
R92	ERJ6GEYJ682V	1/10W 6.8K
R93	ERJ6GEYJ224V	1/10W 220K
R94, 95	ERJ6GEYJ104V	1/10W 100K
R96, 97	ERJ6GEYJ225V	1/10W 2.2M
R98, 99	ERD16TJ223	1/6W 22K
		CHIP JUMPERS
RJ1	ERJ6GEY0R00V	CHIP JUMPER
RJ40	ERJ6GEY0R00V	CHIP JUMPER
RJ43	ERJ6GEY0R00V	CHIP JUMPER
		CAPACITORS
C1	ECUV1C105ZFM	16V 1U
C2	ECUV1C104MD	16V 0.1U
C3	ECEV1HA3R3R	50V 3.3U
C4	ECUV1H682KBN	50V 6800P
C5	ECEV1HA3R3R	50V 3.3U
C6	ECUV1C105ZFN	16V 1U
C7, 8	ECUV1C474ZFM	16V 0.47U
C9	ECEV0GA221P	4V 220U
C10-13	ECST1AY225	10V 2.2U
C14, 15	ECEV1HAR47R	50V 0.47U
C16	ECUV1H102JCM	50V 1000P
C17	ECST0GX226LL	4V 22U
C18	ECUV1H222KBN	50V 2200P
C19	ECUV1H472KBN	50V 4700P
C20	ECUV1H102KBN	50V 1000P
C21	ECUV1H682KBN	50V 6800P
C22-25	ECUV1H152KBN	50V 1500P
C26-29	ECUV1H101KN	50V 100P
C30	ECST0GY106R	4V 10U
C31	ECST1AY225	10V 2.2U
C32, 33	ECUV1C105ZFN	16V 1U
C34-36	ECST1AY225	10V 2.2U
C37	ECST0GY156R	4V 15U
C38	ECUV1H101KN	50V 100P
C39	ECST0GY226R	4V 22U
C40, 41	ECST1EY474R	25V 0.47U
C42, 43	ECUV1E103KBN	25V 0.01U
C44, 45	ECST1AY225	10V 2.2U
C46, 47	ECST1CY105	16V 1U
C48-51	ECUV1H681KBN	50V 680P
C53	ECST0GY226R	4V 22U
C54	ECST1AY225	10V 2.2U
C55	ECST0GY226R	4V 22U
C56	ECUV1E223KB	25V 0.022U
C57	ECUV1C224ZFN	16V 0.22U
C58	ECUV1E183KB	25V 0.018U
C59, 60	ECUV1E104ZFN	25V 0.1U
C61	ECUV1E183KB	25V 0.018U
C62	ECUV1C224ZFN	16V 0.22U
C63	ECUV1E223KB	25V 0.022U
C64	ECST0GY226R	4V 22U
C65, 66	ECUV1C105ZFM	16V 1U
C67, 68	ECUV1H681KBN	50V 680P
C69, 70	ECST0GY685R	4V 6.8U
C71	ECUV1C224MR	16V 0.22U
C72, 73	ECUV1H472KBN	50V 4700P
C74	ECUV1E104ZFN	25V 0.1U
C75	ECST0GY685R	4V 6.8U
C77	ECST0GY685R	4V 6.8U
C79	ECUV1E104ZFN	25V 0.1U
C81	ECST0GY685R	4V 6.8U
C82	ECUV1E104ZFN	25V 0.1U
C83	ECUV1E103KBN	25V 0.01U
C84	ECST0JY475R	6.3V 4.7U
C85	ECST0GY685R	4V 6.8U
C86	ECEV0GA221P	4V 220U
C87	ECUV1C224MR	16V 0.22U
C88-90	ECUV1E473KBM	25V 0.047U
C91	ECST1CY105	16V 1U
C92	ECUV1C224MR	16V 0.22U
C93	ECUV1E104ZFN	25V 0.1U
C94	ECUV1H100DCN	50V 10P
C95-97	ECUV1E104ZFN	25V 0.1U
C98	ECUV1C105ZFN	16V 1U

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	LA4590W-TFM	PRE/POWER AMP	
IC2	LA3235W-TFM	REC AMP	
IC3	NJM2076MT1	DUAL POWER AMP	
IC4	AN6628SE2	MOTOR DRIVE	
IC5	SMC62L35F4J	MICROCOMPUTER	
		TRANSISTOR(S)	
Q1	FMA3T	TRANSISTOR	
Q2, 3	2SD601R	TRANSISTOR	
Q4-7	2SK1840	TRANSISTOR	
Q8	DTC323TK	TRANSISTOR	
Q9, 10	2SB815B7TW	TRANSISTOR	
Q11	DTC114TK	TRANSISTOR	
Q12	2SB815B7TW	TRANSISTOR	
Q13	FMG3TW	TRANSISTOR	
Q14, 15	2SD602ART	TRANSISTOR	
Q16, 17	DTC114TK	TRANSISTOR	
Q18	FMG3TW	TRANSISTOR	
Q19	DTC114YK	TRANSISTOR	
Q20-22	DTC114TK	TRANSISTOR	
Q23	2SB815B7TW	TRANSISTOR	
Q24, 25	DTC114TK	TRANSISTOR	
Q26	2SD601R	TRANSISTOR	
Q27, 28	2SB709ARTW	TRANSISTOR	
Q29	DTC114TK	TRANSISTOR	
Q30	2SB709ARTW	TRANSISTOR	
Q31	DTC114YK	TRANSISTOR	
Q32	2SD1048X7TW	TRANSISTOR	
Q33	2SB815B7TW	TRANSISTOR	
Q34	2SD601R	TRANSISTOR	
Q35	2SB815B7TW	TRANSISTOR	
Q36	DTC114TK	TRANSISTOR	
Q37	2SD1328RTW	TRANSISTOR	
Q38	2SD602ART	TRANSISTOR	
Q39	2SB815B7TW	TRANSISTOR	
Q40	DTC114TK	TRANSISTOR	
Q41	2SB709ARTW	TRANSISTOR	
Q42, 43	2SD601R	TRANSISTOR	
Q44	DTC114YK	TRANSISTOR	
Q45	DTC143TKT147	TRANSISTOR	
Q46	2SD601R	TRANSISTOR	
		DIODE(S)	
D1-4	MA152WA	DIODE	
D5	MA720TW	DIODE	
D6	MA713TW	DIODE	
D7-10	MA152WA	DIODE	

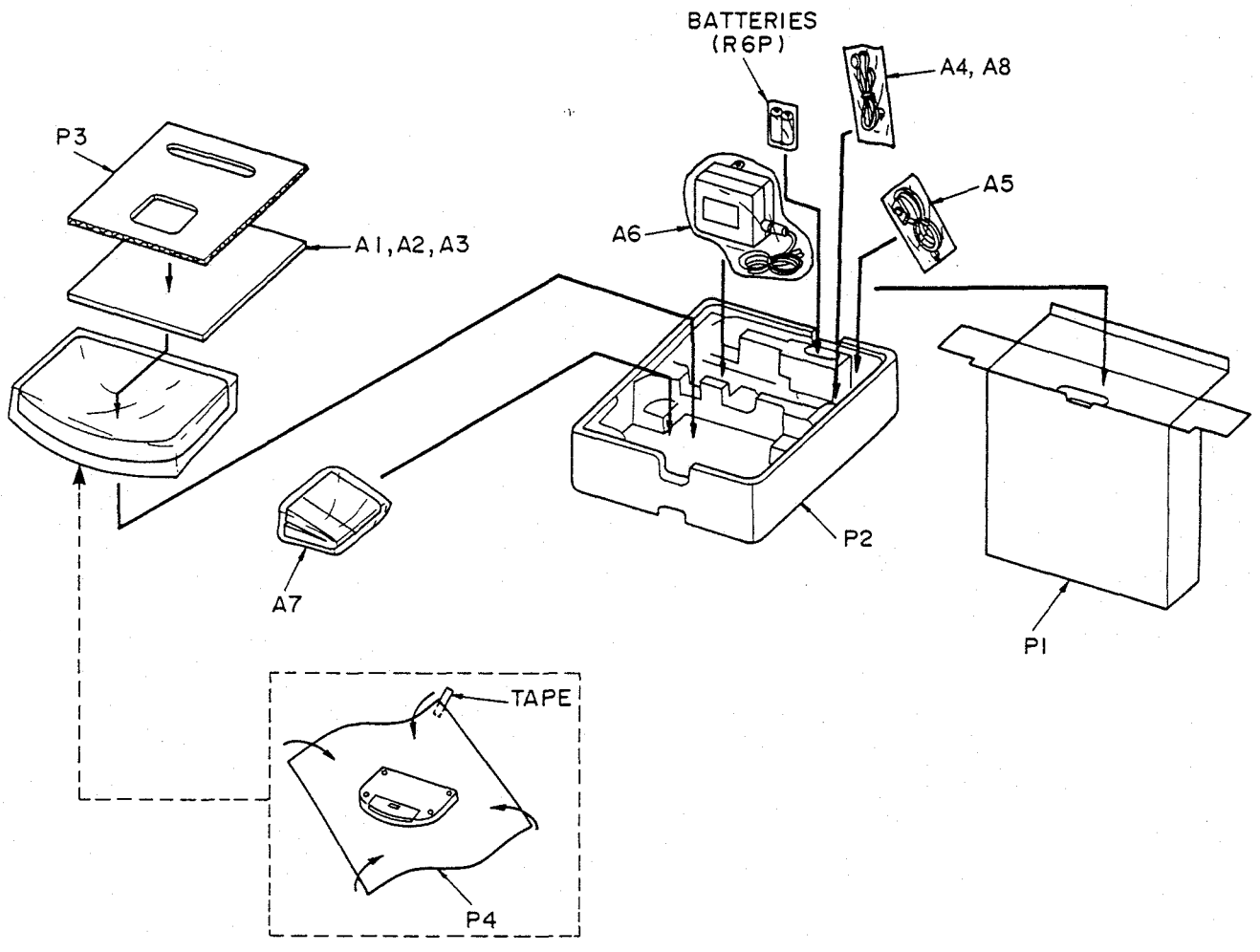
Ref. No.	Part No.	Part Name & Description	Remarks
		VARIABLE RESISTOR(S)	
VR1	EVUAAAT43A54	VOLUME/VAS LEVEL ADJ.	
VR2	EVLH01A19B13	TAPE SPEED ADJ.	
VR3	EVM1DSW30B52	RECORDING TAPE SPEED ADJ.	
VR4	EVM1DSW30B52	PLAYBACK TAPE SPEED ADJ.	
		COIL(S)	
L1	RL08U003T-Z	COIL, BIAS	
L2	RL09U010T-M	COIL, DD CONVERTER	
L3, 4	RLQU100KT-W	COIL	
		OSCILLATOR(S)	
X1	RVCQ32NYF	OSCILLATOR	
		LCD(S)	
LCD1	RSL5079-L	LCD	
		PHOTO INTERRUPTER(S)	
PH1	GP2S27T6	PHOTO INTERRUPTER	
		SPEAKER(S)	
SP1	RAS3P05-Z	SPEAKER	
		SWITCH(ES)	
S1	EVQPA101K	RESET	
S2	EVQPA101K	INDEX	
S3	EVQPA101K	REC·REC PAUSE	
S4	EVQPA101K	PLAY/DIRECTION	
S5	EVQPA101K	STOP	
S6	EVQPA101K	FAST FORWARD/CUE	
S7	EVQPA101K	REWIND/REVIEW	
S8	RSS2A002-A	MECH DET. (FWD/REV)	
S9	RSS2A72ZA-A	HOLD	
S10	RSS2A006-A	REVERSE MODE SELECTOR	
S11	RSS2A006-A	SLE/TONE SELECTOR	
S12	RSS2A006-A	VAS	
S13	RSH1B009-U	LEAF(F. REC. INH. /OPEN CLOSE)	
S15	RSH1B008-U	LEAF(R. REC. INH.)	
		JACK(S)	
JK1	RJJ4302-C	DC INPUT JACK	
JK2	RJJD5S2YA-C	STEREO MICROPHONE JACK	
JK3	RJJ1D5S2ZA-C	HEADPHONES JACK	

Ref. No.	Part No.	Values & Remarks
C99, 100	ECUV1E104ZFN	25V 0.1U
C101	ECST1CY105	16V 1U
C102	ECUV1C105ZFM	16V 1U
C103	ECUV1H181KCN	50V 180P
C104	ECUV1C105ZFM	16V 1U

Ref. No.	Part No.	Values & Remarks
C105	ECUV1H222KBN	50V 2200P
C106	ECUV1E103KBN	25V 0.01U
C107	ECST1CY105	16V 1U
C108-110	ECUV1C105ZFN	16V 1U
C111	ECUV1H102JCM	50V 1000P

Ref. No.	Part No.	Values & Remarks
C112	ECUV1H472KBN	50V 4700P
C114	ECUV1C224MR	16V 0.22U
C115, 116	ECUV1H681KBN	50V 680P
C117	ECUV1H101KN	50V 100P
C118	ECUV1C105ZFN	16V 1U

■ PACKAGING



Printed in Japan
H920816000 NH/YU/TM

ORDER NO. AD9208316A2

Service Manual

Simplified

Mini Cassette Recorder

Mini Cassette

RQ-L500

Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)

Please file and use this manual together with the service manual for Model No. RQ-L500 (P, PC), Order No. AD9207263C1.

Note: • This simplified sevice manual is provided to indicate the main differences between the original model No. RQ-L500 (P, PC) and the subsequent model No. RQ-L500 (E).

CHANGES

■ SPECIFICATIONS

RQ-L500 (P)		RQ-L500 (E)
Power requirement: AC; With included AC adaptor RP-AC11PY-K ◇-◎-◇	➡	Power requirement: AC; With optional AC adaptor RP-AC11EY ◇-◎-◇

■ CHANGE IN REPLACEMENT PARTS LIST (on page 24.)

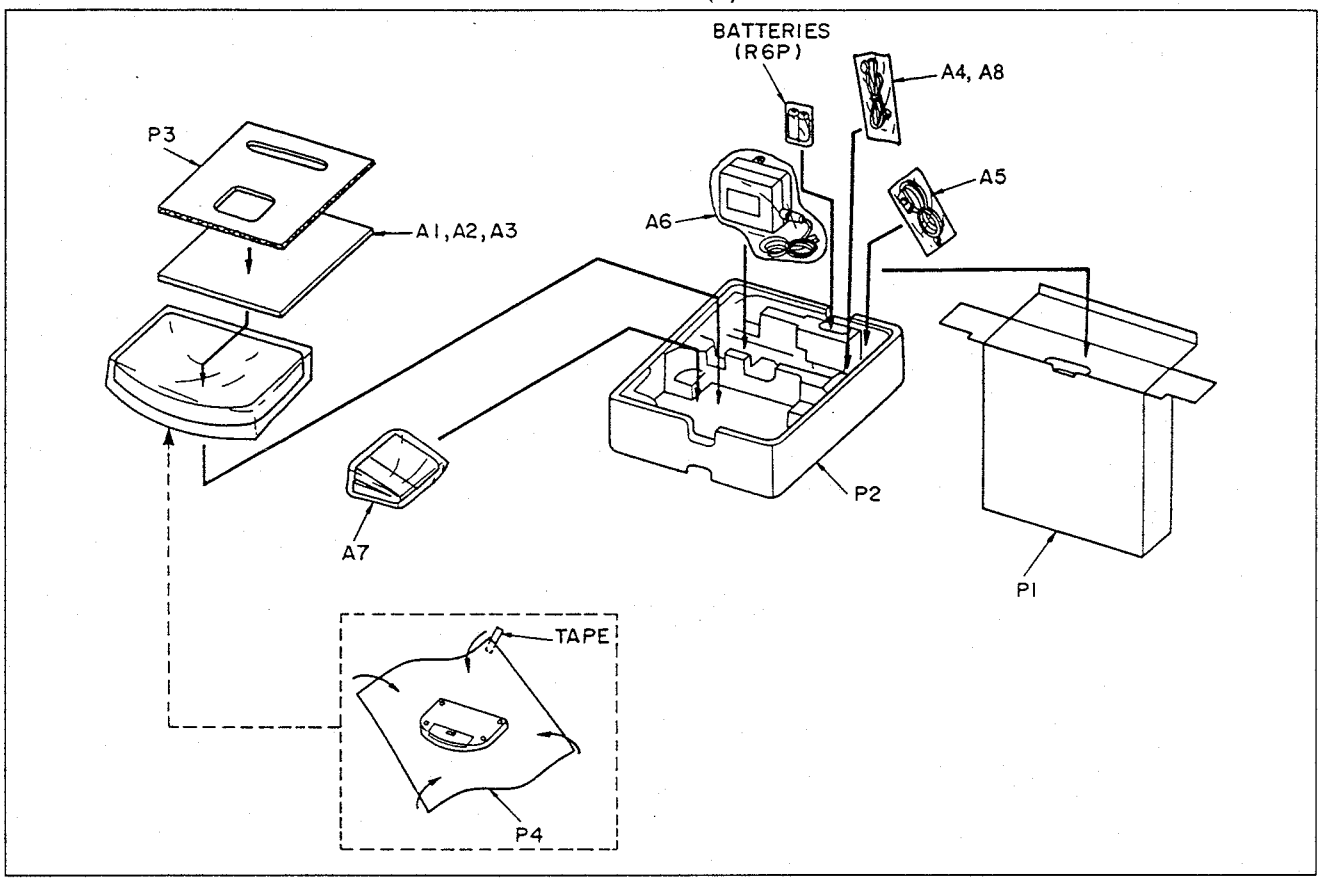
Notes: • Mentioned in this parts list is only those different from Model No. RQ-L500 (P). All other parts are the same as for RQ-L500 (P).
• Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Futhermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
• The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Ref. No.	Change of Part No. RQ-L500 (P) ➡ RQ-L500 (E)		Part Name & Description	Remarks
CABINET AND CHASSIS				
8	RFKLQL500A	**RFKLQL500B**	CASSETTE LID ASS'Y	
11	RFKKQL500B	**RFKKQL500D**	BOTTOM CABINET ASS'Y	
PACKING MATERIAL				
P1	RPKK1161ZA	**RPKK1163ZA**	GIFT BOX	
P2	RPNK3076ZA	**RPNK3075ZA**	CUSHION	
P3	RPEK161ZA	**RPEK204ZA**	PAD	
ACCESSORIES				
A1	RQXK4137ZA	**RQXK4141ZA**	INSTRUCTION MANUAL	
A2	RQA0061	**RQA0013A**	WARRANTY CARD	
A3	RQX9028ZD	**RQCB0169**	SERVICENTER LIST	
A6	RP-AC11PY-K	——	AC ADAPTOR	Deletion △
PRINTED CIRCUIT BOARDS				
PCB1	——	**QEMK1187**	MAIN P.C.B./PANEL SWITCH P.C.B.	(RTL) Addition

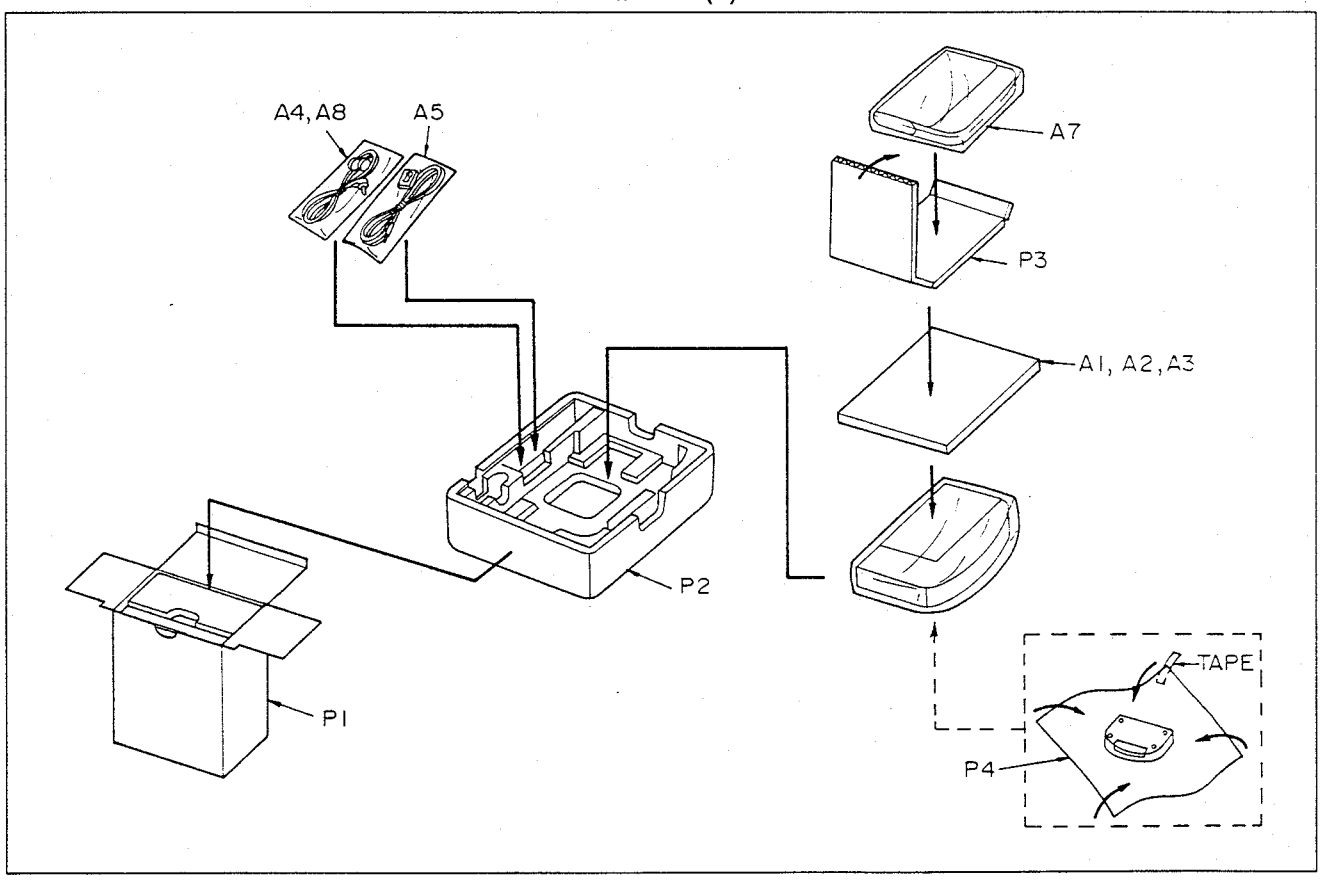
Panasonic

■ PACKAGING (on page 27.)

RQ-L500 (P)



RQ-L500 (E)



Printed in Japan
H920908700 YU/TM